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86-781

No. ——

IN THE

Supreme Court of the United States

OCTOBER TERM, 1986

KANSAS GAS AND ELECTRIC COMPANY,
Appellant,

v.

STATE CORPORATION COMMISSION
OF THE STATE OF KANSAS,
Appellee.

On Appeal from the Supreme Court of Kansas

JURISDICTIONAL STATEMENT

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November 14, 1986

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QUESTIONS PRESENTED

1. Whether by denying a return on 78% of the common shareholders' investment in a new power plant currently serving Kansas customers, the Kansas Corporation Commission set electric utility rates so low as to confiscate Kansas Gas and Electric Company's (KG&E) property in violation of the Fifth and Fourteenth Amendments to the United States Constitution?

2. Whether the Kansas Corporation Commission violated KG&E's rights to equal protection and due process when, for purposes of ratemaking, it valued KG&E's new power plant differently than any other power plant in Kansas?

PARTIES BELOW

The appellants in the Kansas Supreme Court were KG&E, for Case No. 58,914; Kansas City Power & Light Company, for Case No. 58,917; and Kansas Electric Power Cooperative, Inc., for Case No. 58,918. The appellee in all three cases was the State Corporation Commission of the State of Kansas (KCC).* Mary Margaret Rogers; the Attorney General of the State of Kansas; Alliance for Liveable Electric Rates; Electric Shock Coalition; City of Wichita, and Cities of Cheney, Clearwater, Derby, Garden Plain, Goddard, Kechi, Potwin and Whitewater; and Johnson County Joint Intervenor Group also participated in the appeals.

RULE 28.1 STATEMENT

KG&E has no parent and no publicly held affiliates or subsidiaries.

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* The Kansas Supreme Court consolidated the appeals of KG&E, Kansas City Power & Light Company and Kansas Electric Power Cooperative, Inc., from separate rate orders issued by the KCC. Kansas City Power & Light Company will file a separate jurisdictional statement appealing the Kansas Supreme Court decision but will use the Appendices filed by KG&E in this appeal.

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On Appeal from the Supreme Court of Kansas

JURISDICTIONAL STATEMENT

OPINIONS BELOW

The opinion of the Kansas Supreme Court (Appendix A) is reported at 239 Kan. 483, 720 P.2d 1063. The Order of the State Corporation Commission of the State of Kansas (KCC) dated September 27, 1985 (Appendix C) is reported at 70 P.U.R.4th 475. The Orders Denying Rehearing, dated November 15, 1985 (Appendix D) and November 27, 1985 (Appendix E), are unreported.

JURISDICTION

The Kansas Supreme Court issued its opinion on June 13, 1986, and denied rehearing on July 17, 1986. Kansas Gas and Electric Company (KG&E) filed timely Notice of Appeal in the Kansas Supreme Court on September 29, 1986. (App. 1i-2i). This Court has appellate jurisdiction under 28 U.S.C. § 1257(2). *See Nantahala Power & Light Company v. Thornburg*, 106 S. Ct.

2349 (1986).[1] Alternatively, this Court has jurisdiction under 28 U.S.C. § 1257(3).

CONSTITUTIONAL AND STATUTORY PROVISIONS

The United States Constitution, Amendment V, clause 4:

> [N]or shall private property be taken for public use, without just compensation.

The United States Constitution, Amendment XIV, § 1, clauses 3 and 4:

> [N]or shall any State deprive any person of . . . property, without due process of law; nor deny to any person . . . the equal protection of the laws.

The pertinent provisions of the Kansas Public Utilities Act, K.S.A. §§ 66-101, *et seq.* are reprinted in Appendix J.

STATEMENT OF THE CASE

This is an appeal from a decision of the Kansas Supreme Court that affirmed an Order of the KCC setting electric utility rates for KG&E.[2] Those rates deny

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[1] On appeal, the Kansas Supreme Court upheld the Order of the KCC under a challenge that the Order violates KG&E's rights pursuant to the Fifth and Fourteenth Amendments to the United States Constitution. State ratemaking orders issued under delegated legislative authority are "state statutes" for purposes of 28 U.S.C. § 1257(2). *See e.g., Arkansas Elec. Coop. Corp. v. Arkansas Pub. Serv. Comm'n*, 461 U.S. 375 (1983); *Atchison, Topeka & S.F.R. Co. v. Public Utility Comm'n*, 346 U.S. 346 (1953).

[2] Rate regulation sets rates at a level that allows the utility an opportunity to earn revenues sufficient to pay operating expenses and to cover capital costs. That level of revenues typically is defined as:

Revenue Requirement = Operating Expenses + (Rate Base x Weighted Average Cost of Capital)

This appeal focuses on the rate base used by the KCC to determine the end result of the rate order, *i.e.*, KG&E's revenue requirement.

KG&E's common shareholders any return on 78 percent of that portion of their investment in the presently operating Wolf Creek Generating Station (Wolf Creek) found prudent by the KCC.[3]

KG&E provides electric utility service to 246,000 customers primarily in south central Kansas. During the 1960's KG&E relied entirely on natural gas as a fuel for generating electricity. In 1967, KG&E learned that its principal gas supplier no longer would enter into long-term gas contracts.[4] To fulfill its legal obligation to provide an adequate and reliable supply of electric power, KG&E began an orderly transition from its sole reliance on gas generation to a diversified fuel mix including coal and nuclear generation. As part of this transition, KG&E joined with Kansas City Power & Light Company (KCPL) and later with Kansas Electric Power Cooperative, Inc. (KEPCo) to construct and operate Wolf Creek—a nuclear generating plant. KG&E and KCPL each own 47% of Wolf Creek and KEPCo owns the remaining 6%.

When construction began at Wolf Creek in 1977, KG&E estimated that the project would cost approximately $1 billion. When Wolf Creek began commercial operation in 1985, the total cost was approximately $2.9 billion—below the industry average for comparable plants. The cost increased primarily due to changes in

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[3] Public utilities are entitled to a fair return on amounts prudently invested. *Missouri ex rel. Southwestern Bell Telephone Co. v. Public Service Comm'n*, 262 U.S. 276, 289 (1923); *see also, Pennsylvania Coal Co. v. Mahon*, 260 U.S. 393 (1922) (regulation that goes too far constitutes a taking).

[4] This situation was not unique to KG&E, but was part of a growing national concern over the long-term supply and price of natural gas. Eventually, Congress mandated a shift away from natural gas as a boiler fuel for electric power generation in the Power Plant and Industrial Fuel Use Act of 1978.

United States Nuclear Regulatory Commission (NRC) requirements for constructing nuclear power plants.[5]

In 1984, as Wolf Creek neared completion, KG&E requested an increase in rates to reflect the addition of the plant to its rate base. KG&E calculated the increase using a rate base valued at original cost, the method used by the KCC without exception for at least the past 40 years. Accordingly, KG&E requested a rate increase of approximately $373 million to be phased-in over five years.[6] The KCC, however, granted an increase of only $169 million to be phased-in over four years. The KCC reduced KG&E's requested rate increase in three steps:

1) The KCC excluded from rate base approximately $125 million (or 10%) of KG&E's share of the construction costs because it found that those costs were imprudently incurred. (App. 46c-47c, 55c).[7] KG&E does not challenge here this finding by the KCC.

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[5] During the 1970's, several major and unexpected events occurred that led to increases in the cost of constructing nuclear power plants. In 1971, a federal court decision required nuclear plants to comply with standards set forth in the National Environmental Policy Act of 1969. *Calvert Cliffs Coordinating Committee v. Atomic Energy Comm'n*, 449 F.2d 1109 (D.C. Cir. 1971). In 1975, a fire occurred at the Tennessee Valley Authority's Browns Ferry nuclear plant and the incident at the Three Mile Island plant occurred in 1979. As a result, the NRC imposed additional licensing, design and construction requirements on nuclear plants that led to dramatic construction cost increases.

[6] To lessen the impact on its customers, KG&E requested a five year phase-in of the increase related to Wolf Creek instead of a single year increase of $373 million. This results in lower rates in the earlier years.

[7] Wolf Creek serves both retail customers whose rates are regulated by the KCC and wholesale customers whose rates are regulated by the Federal Energy Regulatory Commission (FERC). KG&E's share of the cost of Wolf Creek, regulated by the KCC is $1.295 billion. The amounts disallowed in the KCC Order are based on KG&E's total share of Wolf Creek. The amounts in this

2) Although KG&E is using its entire share of the power from Wolf Creek to provide energy to Kansas customers, the KCC found that 327 megawatts (MW) of KG&E's share of Wolf Creek's capacity is not currently needed. (App. 67c). Accordingly, the KCC excluded $716 million of costs related to 327MW of Wolf Creek. The KCC did allow a partial, deferred return on certain of those costs.[8] (App. 109c-110c). For the deferred return, the KCC valued the 327MW at $1290/kW, instead of the actual cost of $2456/kW. (*Id.*) As a result, KG&E earns no return on $305 million and only a partial (non-common equity) deferred return on $411 million of the total $716 million.

3) After the deductions for imprudence and excess capacity, the KCC found that the remaining cost of Wolf Creek was too expensive. (App. 72c). The KCC, therefore, did not use original cost to value the portion of Wolf Creek currently included in rate base but instead used a supposed "economic value" of $1290/kW, the assumed cost of a hypothetical coal plant. (App. 108c). This valuation method denies a return on an additional $194 million of KG&E's investment in Wolf Creek. The KCC did not base this valuation on a finding that KG&E had acted imprudently in building Wolf Creek. (App. 101c).

As a result of valuing Wolf Creek at $1290/kW, the KCC denied a return on $499 million of KG&E's prudent investment. The total effect of the KCC Order al-

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Jurisdictional Statement are based on KG&E's retail share of Wolf Creek. Therefore, the amounts included herein will be slightly less than the amounts in the KCC Order.

[8] The KCC allowed a deferred return on the debt and preferred stock components of KG&E's capital but not the common shareholder component. This deferred return does not affect current rates or bring KG&E any current income. The return is merely a bookkeeping entry creating a paper asset that has value only because the KCC has promised to allow KG&E to recover this amount in rates at some time in the future.

lows KG&E to earn a return on only $260 million of its $1.170 billion prudent investment in Wolf Creek, even though KG&E's entire share of Wolf Creek presently is being used to produce electricity for its customers. Because KG&E's investment in Wolf Creek is 61% of its total rate base, the KCC Order has a profound impact on KG&E.

In an application for rehearing before the KCC, KG&E alleged that the Order resulted in confiscatory rates in violation of the Fifth and Fourteenth Amendments to the United States Constitution. KG&E also argued that the manner in which the rates were set violates KG&E's equal protection and due process rights in violation of the Fourteenth Amendment to the United States Constitution. In denying rehearing, the KCC did not address directly KG&E's constitutional claims.

On appeal to the Kansas Supreme Court, KG&E argued again that the KCC Order is unconstitutional because it is confiscatory and violates KG&E's equal protection and due process rights. Nevertheless, over a strong dissent by the Chief Justice (App. 46a to 57a), the Kansas Supreme Court upheld the KCC Order.

THE QUESTIONS PRESENTED ARE SUBSTANTIAL

I. THIS CASE PRESENTS ISSUES OF NATIONAL SIGNIFICANCE

The central question in this case is whether a state constitutionally can deny the common shareholders of a utility a return on 78% of their prudent investment in an operating nuclear power plant. The answer to that question has national significance.[9] Utilities across the

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[9] The Kansas Supreme Court recognized this:

> The legal issues presented in this case are not peculiar to Kansas but are the natural result of the national controversy over the construction of nuclear power plants which has developed over the last thirty years. (App. 6a).

country have investments in over forty nuclear generating plants that are nearing completion or newly completed and awaiting final ratemaking treatment by state regulators. Those utilities have invested over $120 billion in constructing those plants. In currently pending cases, there exists a potential disallowance of tens of billions of dollars.

For plants built before the mid-1970's, low inflation, economies of scale and increases in consumer demand minimized the need for significant rate increases to recover the costs of construction. Those mitigating factors no longer exist. The cost of power plants has increased dramatically over the last ten years.[10]

Because so many utilities have invested in nuclear plants and regulators continue to limit the rate increases related to these plants, the issue presented by this case is arising more frequently and will continue to arise.[11] Absent action by this Court, the owners of new generating plants face the likelihood of the same unconstitutional disallowances that were imposed on KG&E.

A. Regulated Return—Reduced Investment Risk

Electric energy is a fundamental and pervasive part of our way of life and our economic activity. As a result, electric utilities are required by state law to provide an adequate and reliable supply of electricity on demand. *See, e.g.*, K.S.A. § 66-101b (App. 1j-2j). Electric energy in the United States is provided primarily by investor-owned utilities. These utilities finance the construction of generation, transmission and distribution facilities with investor supplied funds. Such funds are available only if utilities offer investors an opportunity to earn a return commensurate with the risk undertaken.

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[10] As discussed in Note 5, this is largely due to regulations imposed by the federal government.

[11] *See* Wall Street Journal, October 2, 1986, at 1, Col. 6.

Recent construction of new power plants throughout the country has required large amounts of funds provided by investors expecting a return on those funds. This has created a tension between the interest of consumers in low rates and the interest of investors in receiving a fair return.[12]

Regulation of rates serves to balance the interests of utility investors and ratepayers. *Federal Power Commission v. Hope Natural Gas Company*, 320 U.S. 591 (1944).

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[12] Often this tension results in consumers exerting political pressure to ensure low utility rates. This is illustrated by the Kansas legislature's efforts to limit rate recognition of Wolf Creek. In 1978, after construction of Wolf Creek began, the Kansas legislature prohibited rate recognition of the carrying costs of utility construction projects during the construction period. K.S.A. § 66-128 (App. 2j). Many states allow such rate recognition. One Kansas legislator has stated that the Kansas law is one of her proudest accomplishments. Wichita Eagle-Beacon, August 14, 1986, at 1D, Col. 1. As a result of that law, KG&E's rates were held down in the short run at the cost in the long run of adding $1 billion of accumulated and compounded carrying charges to the final cost of Wolf Creek. Such a law/public policy is not in itself unconstitutional because implicit in the policy is the "promise" that in return for the short run benefits, ratepayers will pay the long run costs in full.

As the cost of Wolf Creek increased, primarily as a result of changing NRC regulations and the Kansas law prohibiting rate recognition of construction carrying charges, the Kansas legislature became concerned about the rate impact of Wolf Creek. The "promise" that the long run costs would be paid in full was broken in 1984 when the Kansas legislature amended Kansas utility laws to facilitate reducing the rate impact of Wolf Creek. K.S.A. §§ 66-128a to 66-128k (App. 2j-9j). The principal author of the amendments described them as a response to a "political imperative." Vancrum, *The Wolf Creek Excess Cost—Excess Capacity Bill*, 33 U.Kan.L.Rev. 475 (1985). As Chief Justice Schroeder stated in his dissent from the Kansas Supreme Court decision, the legislature provided the KCC with tools sufficient to drastically reduce the rate increase related to Wolf Creek. (App. 48a). KG&E does not challenge the facial validity of the current Kansas utility statutes. KG&E challenges the KCC's unconstitutional application of those statutes. In any event, the changes in the utility law illustrate the political atmosphere in which utilities must seek rate recognition of prudent investments.

Towards that end, regulation requires utility investors to forego the opportunity to earn high returns available in competitive enterprises. In return, investors are insulated from the risk of large losses. For example, utility investors do not have the opportunity to earn the profits Ford earned on the Mustang because they do not risk the losses Ford incurred on the Edsel. Without reduced investment risk, utility investors would require higher returns. Utilities would then be unable to obtain low-cost capital to build facilities necessary to provide adequate and reliable supplies of electricity.

Since the decision in *Federal Power Commission v. Hope Natural Gas Company, supra,* regulatory commissions in Kansas and throughout the country have used original cost as the basis for determining the value of new plant added to rate base. Original cost assures that the value of additions to rate base is not subject to fluctuations in market conditions. A stable and predictable value reduces investment risk and allows utilities to attract low cost capital. Recently, however, regulators have abandoned original cost ratemaking principles.[13] The present case is an extreme example of such a departure.

In this case, the KCC adopted a new standard for valuing additions to rate base. Under the KCC standard, additional generating capacity is placed into rate base at the lesser of original cost or a supposed economic value. Existing utility assets remain valued at net original cost, which is much lower than economic value. In applying this standard, the KCC valued KG&E's new power plant —a nuclear unit—not at its original cost of $2456/kW ($2220/kW of which the KCC found prudent), but rather at $1290/kW, the supposed cost of a contemporaneous

[13] *See, e.g., Western Massachusetts Electric Co.,* Docket No. 85-270 (Mass. D.P.U., June 30, 1986); *Idaho Power Company,* Case No. U-1006-265, Order No. 20610 (Idaho P.U.C., July 11, 1986).

hypothetical coal plant. Balance suggests that this $1290/kW value be applied at least to KG&E's existing coal plants which have an original cost of much less than $1290/kW.[14]

The KCC's standard exposes utilities to the risk that new generating plant, that was prudently planned and constructed, will turn out when completed to be "uneconomical." Because economic value is applied only to new plant, a utility cannot balance the potential loss from the "uneconomical" new plant with a revaluation of existing plant. By using original cost when it is lowest and "economic value" when it is lowest, the KCC has created a situation in which a utility can only lose.

In the long run, the new valuation method applied in this case will discourage utilities from investing in needed capacity because the risk will be too great. To provide reliable service, utilities must build new power plants to replace aging facilities, meet increasing demand for electricity, and diversify the fuel sources for generating electricity. Under the new standard, investors will be unwilling to provide funds at a regulated rate of return because they have no assurance of an opportunity to earn that return. This reluctance already exists. *See Boston Edison Company*, Docket No. 85-266A at 8 (Mass. D.P.U., June 26, 1986). In that case, Boston Edison's projections showed a need for additional generating plants by 1988, but the utility had not made final plans for additional generation because it believed that recent Massachusetts rate orders make the risk of recovering investment in new plants extremely high. Before investing additional funds, Boston Edison sought assurance from the state commission that prudently incurred costs would be recoverable. Instead of providing such assurance, the Massachusetts Department of Public Utilities found that Boston Edison had abdicated its pub-

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[14] Logic would compel the use of economic value for KG&E's entire rate base.

lic service obligation and penalized the utility by reducing severely the allowed rate of return. *Id.* at 14.

The long lead time for bringing new plants into service, coupled with utilities' reluctance to invest in new capacity because of increased risk of penalties by regulators, could result in future shortages of electric power.[15]

B. The Need for Supreme Court Action

This Court is the sole federal forum available for resolving constitutional infirmities in state ratemaking proceedings. The Johnson Act, 28 U.S.C. § 1342, effectively prevents lower federal courts from reviewing state rate orders in such cases. State courts routinely refuse to review constitutional challenges to rate orders[16] and justify their refusal with their interpretation of this Court's decision in *Hope*. State regulatory commissions, therefore, operate essentially without review. Although commissions should be accorded discretion based on their ratemaking expertise, their discretion must be exercised within the bounds of the Constitution.

Until recently, this Court's lack of guidance to state regulators has not been of great concern. Questions of confiscation did not arise previously because investment in new generating plant did not represent a large portion of a utility's assets. Recent investment in new plant, however, represents vast sums, often more than one-half of rate base for many utilities. The time has

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[15] *See* Studness, *Rate Base Disallowances and Future Utility Generating Capacity*, Pub. Util. Fort., September 4, 1986, at 33.

[16] *See e.g. Legislative Utility Consumers' Council v. Public Service of New Hampshire*, 119 N.H. 332, 402 A.2d 626 (1979); *Cleveland Electric Illuminating Co. v. Public Utilities Comm'n*, 4 Ohio St. 3d 107, 447 N.E.2d 746 (1983), *appeal denied*, 464 U.S. 802 (1983); *Savannah Electric and Power Co. v. Public Service Comm'n*, 239 Ga. 156, 236 S.E.2d 87 (1977); *Washington Gas Light Co. v. Public Service Comm'n*, 450 A.2d 1187 (D.C. App. 1982); *Application of Hawaii Tel. Co.*, 689 P.2d 741 (1984).

come for this Court to provide needed guidance to state commissions about the constitutional limits on ratemaking.

This case presents the proper factual basis upon which to provide constitutional guidelines for ratemaking. Most recent requests for review by utilities claiming confiscation have involved plants not presently in service or abandoned during construction.[17] This case involves a plant that has been, and continues to be, used to provide electric power to customers in Kansas. Since Wolf Creek began commercial operation on September 3, 1985, it has produced over 8.9 billion kilowatt hours of energy, setting a United States record for nuclear plant operation. The denial of the opportunity to earn a fair return on the investment in such a plant is unconstitutional.

II. THE KANSAS COURT DECISION AND THE KCC ORDER CONFISCATE KG&E'S PROPERTY

The KCC Order as affirmed by the Kansas Supreme Court confiscates KG&E's property. By disallowing any return on 78% of the prudent investment in Wolf Creek, the KCC set rates that permit less than a one percent (0.919) return to KG&E's common shareholders.[18] The Kansas Supreme Court did not properly review the KCC Order. As a result, the rates set by the KCC and affirmed by the Kansas Court are so low that they are unconstitutional.

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[17] *See e.g., Northern Indiana Public Service Company v. Citizens Action Coalition of Indiana, Inc.*, 485 N.E.2d 610 (1985), *cert. denied*, 106 S. Ct. 2239 (1986); *Metropolitan Edison Company v. Pennsylvania Public Utility Comm'n*, 509 Pa. 32[4], 502 A.2d 130 (1985), *appeal denied*, 106 S. Ct. 2239 (1986); *Cleveland Electric Illuminating Company v. Public Utilities Comm'n*, 4 Ohio St. 3d 107, 447 N.E.2d 746 (1983), *appeal denied*, 464 U.S. 802 (1983).

[18] The KCC found that a 15.50% return to common shareholders would be reasonable. (App. 136c).

A. The Kansas Supreme Court Decision

The question presented when a rate order is challenged as confiscatory is whether the order viewed in its entirety and measured by its end result is just and reasonable. *Hope*, 320 U.S. at 602. Judicial review should focus on whether the regulator adequately has balanced investor and consumer interests and whether rates fall within the zone of reasonableness defined by those interests. *E.g., Washington Gas Light Company v. Baker*, 188 F.2d 11, 14-15 (D.C. Cir. 1950), *cert. denied*, 340 U.S. 952 (1951). This is ". . . not a standard so vague and devoid of meaning as to render judicial review a perfunctory process. It is a standard of finance resting on stubborn facts." *Colorado Interstate Gas Company v. Federal Power Commission*, 324 U.S. 581, 605 (1945). The reviewing court must determine whether the rate order provides enough revenue not only for operating expenses, but also for capital costs of the business, including service on debt and dividends for stockholders. The return on equity must be commensurate with returns available from enterprises having similar risks and must be sufficient to assure confidence in the financial integrity of the utility in order to attract capital and maintain credit ratings. *Hope*, 320 U.S. at 603.

The Kansas Supreme Court ostensibly recognized its obligation to ensure that the KCC "establish a rate within the 'zone of reasonableness' after application of a balancing test in which the interests of all concerned parties are considered." (App. 45a). Nevertheless, that court's opinion demonstrates that it did not perform any review to determine whether the KCC in fact achieved that goal. The court's *entire* discussion of the reasonableness of the KCC Order is contained in a scant two paragraphs. (App. 45a-46a). Nowhere in those two paragraphs did the court consider whether the order provides sufficient revenue for the capital costs of the business, whether the return allowed is commensurate with

returns on investments with comparable risks, and whether the return is sufficient to maintain credit and attract capital—the investors' interests defined in *Hope*. 320 U.S. at 603.

By ignoring the consequences of the KCC Order on KG&E's investors, the Kansas Supreme Court did not apply the standard of review required by *Hope*. The court's only inquiry into the financial consequences of the KCC Order led it to the conclusion that the rates were not improper because "[i]t is only the return or profit on certain costs which has been restricted by the Commission." (App. 46a). The "restriction of return" is exactly what must be examined in a constitutional inquiry. The Kansas Supreme Court did not perform such an examination. If the court had applied the proper standard of review, the only possible conclusion would have been that the restriction of a return on KG&E's investment in 61% of its total utility property is unconstitutional.

B. The KCC Order

The rates set by the KCC are so low that they are constitutionally deficient. The KCC must have known this. In its Order, the KCC noted that the first-year rate increase proposed by KG&E was the minimum amount that would meet KG&E's financial requirements. (App. 151c). The KCC also found that an alternative rate increase proposed by the KCC Staff (which was lower than KG&E's request) would place KG&E under "severe financial stress." (App. 155c). The KCC went on to note that the rate increase actually adopted "will have an even more serious impact on the company's financial health." (*Id.*) Rates below those that create severe financial stress and below those that meet minimum financial requirements necessarily deny investors an opportunity for a fair return on their investment and result in confiscation.

Investors must be allowed the opportunity to earn revenues sufficient to cover operating expenses and capital costs, including debt service and dividends on stock. *Hope*, 320 U.S. at 603. The revenues allowed by the KCC do not meet the requirements of *Hope*. Deductions from KG&E's rate base related to Wolf Creek result in KG&E being authorized to earn annual net operating income of approximately $120.8 million [19] by the end of the four year rate phase-in. From that operating income, KG&E must pay interest on its mortgage bonds, bank loans and other contractually established credit agreements, as well as dividends on preferred stock. At the time of KG&E's rate case, those commitments amounted to approximately $114.4 million. That leaves only $6.4 million per year to cover any increases in operating expenses during the phase-in period and to provide a return for KG&E's common shareholders. If KG&E's shareholders were to receive the entire $6 million (which is highly unlikely), they would earn less than a one percent return.[20]

The KCC found that a 15.50% return to common shareholders would be reasonable for KG&E. (App. 136c). But by imposing the rate base disallowances, the KCC denied KG&E the opportunity to earn that return on its prudent investment. The Federal Energy Regulatory Commission's benchmark rate of return of 13.96% for electric utilities at the time the KCC Order was issued also is greater than the return KG&E received. 50 Fed. Reg. 29655 (July 22, 1985). Less than a one percent return hardly can be characterized as commensurate with returns on investments in enterprises having comparable risks and thus confiscates KG&E's property.

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[19] This amount is based on the total rate increase of $169 million allowed by the KCC. The increase allowed in the first year of the phase-in, however, is only $135 million.

[20] That return increases to only 2.940% by recognizing the KCC's allowance of a partial (*i.e.*, no return on common equity), non-current non-cash return on the portion of Wolf Creek found to be excess physical capacity. (*See supra* page 5).

III. THE KCC'S METHOD OF SETTING RATES VIOLATES KG&E'S RIGHT TO EQUAL PROTECTION AND DUE PROCESS

A. The KCC Denied KG&E Equal Protection

The KCC's charge under K.S.A. § 66-128 is to determine the "reasonable value" of all property used and required to be used to serve the public in Kansas. (App. 14a). The KCC has consistently applied this statute, existing in substantially similar form since 1911, by using a single measure of value for all utility assets. The KCC deviated from this long-standing practice in determining the value of Wolf Creek. In calculating KG&E's rates, the KCC used the supposed "economic value" of Wolf Creek—a value significantly below original cost. The KCC applied this measure of value only to Wolf Creek. KG&E's other assets remain valued at net original cost, which is far below their "economic value." The valuation method used by the KCC is inherently punitive because it ensures that the lowest possible value is applied to a utility's property. When "economic value" is lower, the KCC uses that method; when original cost is lower, the KCC uses original cost. In his dissent, Chief Justice Schroeder recognized the impropriety of this inherently punitive valuation method:

> A regulatory body may not arbitrarily use the asserted, lower cost of a fictional facility instead of the historical cost of an actual facility in assigning a value to the facility in question for rate base purposes, particularly where that is done selectively to achieve the lowest possible rate base.

(App. 56a).

Application of this special ratemaking treatment to KG&E and not other Kansas utilities, and application of the method only to Wolf Creek and not KG&E's other assets so lacks a rational basis that the KCC Order fails to meet the minimal standard of rationality required for equal protection under the Fourteenth Amendment. *See*

New Orleans v. Dukes, 427 U.S. 297, 303 (1976). The KCC articulated no justification for this denial of equal treatment. Although KG&E repeatedly demonstrated that the KCC Order failed to meet the minimal standard of rationality required for equal protection, the Kansas Supreme Court never addressed KG&E's arguments.[21]

The KCC's determination of a "reasonable value" for KG&E's utility property in this case is the product of an arbitrary and capricious decision-making process. The concept of "reasonable value" is not so malleable and imprecise that it allows inconsistent valuation methods for KG&E's generating plants, especially when all of KG&E's plants produce an identical product—electricity. In other utility ratemaking cases where mixed measures of value have been proposed, in the guise of economic excess capacity or otherwise, regulatory bodies and courts have consistently rejected the proposal.[22] This Court likewise should reject the imposition of inconsistent valuation methods. An affirmance of the decision challenged in this appeal will sanction an unconstitutional practice and send the economic signal of increased investment risk to every utility shareholder in the country.

B. The KCC Denied KG&E Procedural Due Process

In addition to violating KG&E's right to equal protection, the KCC violated KG&E's right to procedural due

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[21] The Kansas Supreme Court did not separately address KG&E's equal protection and due process claims. Uncertainty exists about whether the standard of review set forth in *Hope* applies only to questions of confiscation or whether the standard applies to all challenges to rate orders. Review by this Court is appropriate to clarify the confusion about the standard for judicial review of rate orders.

[22] *See, e.g., Montana Power Co. v. Montana Department of Public Service Regulation*, 68 P.U.R.4th 521, 526-27 (Mont. Dist. Ct. 1985); *Washington Water Power Co.*, 60 P.U.R.4th 503, 508-9 (Idaho P.U.C. 1984); *Union Electric Co.*, 67 P.U.R.4th 218, 233 (Ill. C.C. 1985); *Union Electric Co.*, 72 P.U.R4th 444, 450 (Iowa CC. 1986); *Long Island Lighting Company*, 75 P.U.R.4th 423, 457 (N.Y.P.S.C. 1986).

process.[23] Using the assumed cost of a hypothetical coal plant as the basis for valuing Wolf Creek was not even discussed at the hearings before the KCC. This valuation method first appeared in the KCC Order. KG&E had no opportunity to present evidence about the propriety of using the cost of an alternative generating plant to value Wolf Creek or, assuming that such a method were proper, the appropriate costs to include in such a computation. KG&E was completely surprised by the KCC's creation of such a valuation method. KG&E has been deprived of its rights to notice and an opportunity to be heard on this issue.

KG&E had a hearing on its rate request, but as to the measure of value adopted by the KCC for Wolf Creek, the deprivation of notice and an opportunity to be heard was complete. The valuation of Wolf Creek was the most important issue before the KCC. KG&E, therefore, should not be foreclosed from presenting evidence or challenging through cross-examination the valuation method under consideration and ultimately adopted by the KCC.

Protection of KG&E's right to procedural due process takes on even greater significance in light of the substantial departure from past regulatory practice adopted by the KCC and approved by the Kansas Supreme Court. Following this Court's decision in *Hope*, regulators, including the KCC, valued rate base at the net original cost of a utility's investment. Indeed, the Kansas Supreme Court adopted this traditional definition when it defined rate base:

> The 'rate base' may be defined as the dollar amount of a given utility's *investment* in the plant and property 'used and required to be used' in supplying the service that the utility has undertaken to furnish.

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[23] There can be no question of KG&E's right, under the Fourteenth Amendment, to procedural due process in ratemaking proceedings before the KCC. *See Railroad Comm'n v. Pacific Gas & Electric Co.*, 302 U.S. 388, 393 (1938).

(App. 27a (emphasis added)). The KCC abandoned net original cost as the measure of Wolf Creek's value. As noted by Chief Justice Schroeder in his dissent, "[t]he [valuation] method used by the KCC . . . was the unprecedented revaluation of the Wolf Creek facility . . . as a hypothetical coal plant." (App. 51a). Such a departure from past regulatory practice in Kansas and across the country warrants notice and an opportunity to be heard. Both were absent in the proceeding before the KCC and both are unaddressed by the Kansas Supreme Court.

CONCLUSION

The Court should note jurisdiction and set the case for full briefing and argument on the merits. Regulators of electric utilities are sorely in need of guidance. The constitutional questions concerning the ability of utilities to provide electric power are too important to allow state regulators and courts to be the only tribunals to consider them. Therefore, this Court should reverse the Kansas Supreme Court decision and remand the case with instructions to set phased-in rates for KG&E reflecting the full prudent costs of Wolf Creek.

Respectfully submitted,

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November 14, 1986

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Nos.

IN THE

Supreme Court of the United States

OCTOBER TERM, 1986

KANSAS GAS AND ELECTRIC COMPANY,
Appellant,
v.
STATE CORPORATION COMMISSION
OF THE STATE OF KANSAS,
Appellee.

KANSAS CITY POWER & LIGHT COMPANY,
Appellant,
v.
STATE CORPORATION COMMISSION
OF THE STATE OF KANSAS,
Appellee.

On Appeal from the Supreme Court of Kansas

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APPENDIX A

Opinion of the Kansas Supreme Court

IN THE SUPREME COURT
OF THE STATE OF KANSAS

JANUARY TERM, 1986

No. 58,914

KANSAS GAS AND ELECTRIC COMPANY,
Applicant/Appellant,

v.

STATE CORPORATION COMMISSION
OF THE STATE OF KANSAS,
Respondent/Appellee.

No. 58,917

KANSAS CITY POWER & LIGHT COMPANY,
Applicant/Appellant,

v.

STATE CORPORATION COMMISSION
OF THE STATE OF KANSAS,
Respondent/Appellee.

No. 58,918

KANSAS ELECTRIC POWER COOPERATIVE, INC.,
Applicant/Appellant,

v.

STATE CORPORATION COMMISSION
OF THE STATE OF KANSAS,
Respondent/Appellee.

Filed June 13, 1986

SYLLABUS BY THE COURT

1. KANSAS CORPORATION COMMISSION—*Nuclear Power Plant—Valuation of Property for Rate-making Purposes—KCC Determination.* The record is examined in three consolidated appeals from orders of the Kansas Corporation Commission determining the valuation of the Wolf Creek nuclear generating facility for rate-making purposes and it is held that the KCC did not err in excluding from the rate base (1) certain costs of construction found to have been imprudently incurred, (2) certain costs found to constitute excess physical capacity, and (3) certain costs found to constitute excess economic capacity.
2. SAME—*Electrical Utilities—Rates—KCC Determination.* The Kansas Corporation Commission, in setting the rates for an electrical utility, should have as its goal the fixing of the rates, within a zone of reasonableness after balancing the interests of the utility's investors, the ratepayers, and the public.
3. SAME—*Public Utilities—Rates—No Constitutional Requirement that Rates Be Set at Level that Will Guarantee Return on Capital Investment.* There is no constitutional requirement that a utility's rates be set by a regulatory authority at a sufficiently high level to guarantee a return on its capital investments, irrespective of the interests of the ratepayers and the public.
4. SAME—*Nuclear Power Plant—Statutory Authority of KCC to Set Rates.* The Kansas statutes which give the power and authority to the Kansas Corporation Commission to fix the rates for a public utility (K.S.A. 66-101 *et seq.*) are analyzed and discussed in relation to the Wolf Creek nuclear generating facility.

5. PUBLIC UTILITIES—*Statutory Authority for KCC Determination of Valuation of Property for Rate-making Purposes—Constitutionality of Statutes.* K.S.A. 66-128 *et seq.*, are not unconstitutional because of vagueness or as an unlawful delegation of legislative authority.

6. KANSAS CORPORATION COMMISSION—*Public Utilities—Valuation of Property for Rate-making Purposes—KCC Determination.* The Kansas Corporation Commission is not bound to use any particular formula, or combination of formulae, in valuing a public utility's property for rate-making purposes. Any evidence having a bearing on reasonable value may be considered, and the KCC may then use any formula or combination of formulae that it may believe necessary for arriving at a reasonable basis for rate-making purposes.

7. PUBLIC UTILITIES—*Electric Generating Property —Construction Costs—Rebuttable Presumption as to Lack of Prudence by Utility's Incurring Cost Overruns.* K.S.A. 66-128g(b), which creates a rebuttable presumption that construction costs of a generating plant or facility have been incurred due to a lack of prudence as to that portion of the total costs which exceed 200% of the original cost estimate, is not unconstitutional as a violation of due process of law.

8. KANSAS CORPORATION COMMISSION—*Nuclear Power Plant—Construction Cost Disallowance Due to Excess Economic Capacity—Balancing of Interests.* In determining that a portion of the construction costs of the Wolf Creek nuclear generating facility should be disallowed because it constituted excess economic capacity, the Kansas Corporation Commission did not err in using a risk-sharing approach in balancing the interests of the investors and the ratepayers.

9. SAME—*Nuclear Power Plant—KCC Rate Base Determination Does Not Encroach on Federal NRA Safety Requirements.* The determination of the rate base for revenue purposes by a state regulatory agency does not encroach on the power of the federal Nuclear Regulatory Agency to establish and regulate the safety requirements of nuclear generating plants.

Review of decisions of Kansas Corporation Commission. Opinion filed June 13, 1986. Affirmed.

James Haines and *Jonathan L. Heller*, of Wichita, and *Edgar M. Roach, Jr.*, of Hunton & Williams, of Raleigh, North Carolina, argued the cause, and *Ralph Foster*, of Wichita, *Richard D. Gray* and *Laurence E. Skinner*, of Hunton & Williams, of Richmond, Virginia, and *Thomas E. Graham*, of the same firm, of Raleigh, North Carolina, were with them on the briefs for appellant Kansas Gas and Electric Company.

Lowell L. Smithson, of Spencer, Fane, Britt & Browne, of Kansas City, Missouri, argued the cause, and *Russell W. Baker, Jr.* and *Curtis E. Woods*, of the same firm, *Charles S. Schnider*, of the same firm, of Overland Park, and *Warren B. Wood*, of Overland Park, were with him on the briefs for appellant Kansas City Power and Light Company.

Clifford L. Bertholf and *John Philip Kassebaum*, of Kassenbaum & Johnson, of Wichita, argued the cause and were on the briefs for appellant Kansas Electric Power Cooperative, Inc.

Brian J. Moline, general counsel, and *Donald A. Low*, director of utilities, argued the cause, and *LuAnn C. Dixon, John Ray Rosacker, Robert L. Bezek, Jr.*, and *Richard Hird*, assistants general counsel, were with them on the brief for appellee Kansas Corporation Commission.

Patrick H. Donahue, of Kansas Legal Services, Inc., of Topeka, argued the cause, and *William G. Riggins*, of the

same organization, was with him on the brief for intervenor Mary Margaret Rogers.

Robert T. Stephan, attorney general, and *Carl M. Anderson*, assistant attorney general, were on the brief for intervenor Office of the Attorney General.

Robert Vinson Eye, of Irigonegaray, Eye & Florez, of Topeka, was on the brief for intervenor Alliance for Liveable Electric Rates (ALERT).

Dwight A. Corrin, of Corrin & Krysl, Chartered, of Wichita, was on the brief for intervenor Electric Shock Coalition.

John Dekker, city attorney, and *Joe Allen Lang*, assistant city attorney, were on the brief for intervenor City of Wichita and Cities of Cheney, Clearwater, Derby, Garden Plain, Goddard, Kechi, Potwin and Whitewater.

C. Edward Peterson, of Perry & Hamill, of Overland Park, was on the brief for intervenor Johnson County Joint Intervenor Group.

OPINION

The opinion of the court was delivered by

PRAGER, J.: This is a consolidation of three appeals by three electrical utilities from orders of the State Corporation Commission (KCC) granting in part and denying in part the requests of the utilities for rate increases due to the commercial operations of the Wolf Creek Generating Station (Wolf Creek) near Burlington, Kansas. The three utilities are Kansas Gas and Electric Company (KGE), Kansas City Power and Light Company (KCPL), and Kansas Electric Power Cooperative, Inc. (KEPCo). The KCC is the appellee. There are also a number of intervenors, including the Kansas Attorney General and various individuals and organizations representing interested citizens and the public.

Historical Background

The legal issues presented in this case are not peculiar to Kansas but are the natural result of the national controversy over the construction of nuclear power plants which has developed over the past thirty years. On December 8, 1953, in his address to the United Nations, President Dwight D. Eisenhower announced his "Atoms for Peace" program. Among other subjects, he spoke of using the atom "to serve the peaceful pursuits of mankind." He spoke of providing abundant electrical energy in the power-starved areas of the world and envisioned the cooperation of the nations of the world to serve the needs rather than the fears of mankind. The possibility that nuclear energy could be used to improve rather than to destroy the world excited most Americans. Today, three decades later, the future of nuclear power is uncertain and the national debate has not been resolved.

In 1953, the Atomic Energy Commission, an agency created by Congress to supervise atomic energy and its development, allocated funds for a demonstration nuclear plant at Shippingport, Pennsylvania. The reactor used in that plant was very small and, by modern standards, its output of electricity was very modest. During the 1960s, several private companies developed nuclear reactors and marketed them to utilities at prices competitive with conventional generators. Between 1965 and 1975, the nuclear industry was perhaps the fastest growing major industry in the United States.

During the 1960s, KGE used natural gas to generate its electricity. Some time during the late 1960s, KGE was notified by its natural gas supplier that the utility's access to natural gas eventually would end. At that time, KGE was experiencing a growth in demand for electricity of approximately seven percent per year. KCPL, an electrical utility in northeast Kansas, was experiencing the same growth in demand. Both utilities, like many others around the country, faced the decision of whether

to generate electricity from coal or from natural gas or from nuclear power. Studies were commissioned which suggested that nuclear power rather than coal or natural gas was the most cost efficient and environmentally sound alternative for expansion of electrical capacity. As a result, KGE and KCPL, and later KEPCo, decided to take the nuclear route. KGE and KCPL each took 47% shares in the project, and KEPCo took a 6% share.

In January of 1977, the Nuclear Regulatory Commission (NRC), the successor to the Atomic Energy Commission, issued a temporary work authorization permit for the construction of a nuclear facility on Wolf Creek in Coffey County. In May of 1977, major construction work began. It was estimated in February of 1973 that the cost of constructing the nuclear plant at Wolf Creek would be in the neighborhood of $525,000,000. The ultimate cost of construction amounted to about $3,000,000,000, almost a six-fold increase.

It is clear that three unforeseen events occurred during the mid-1970s which affected the relative attractiveness of the nuclear option and brought about a tremendous increase in the cost of construction. After several nuclear power plants were constructed, a series of accidents occurred which intensified the debate over the use of nuclear energy. At the Three Mile Island accident in March 1979, a mechanical malfunction, compounded with human errors, brought the Three Mile Island nuclear reactor close to a meltdown. This required the utilities to increase their efforts to improve plant safety. New safety equipment, which the NRC required, added millions of dollars to the costs of nuclear plant construction at Wolf Creek and elsewhere.

Another important factor was the change in "energy economics" that occurred during the 1970s. When OPEC in 1973-74 raised the price of oil, making nuclear power even more attractive, orders for nuclear reactors increased. A second oil shock occurred in 1979 when, fol-

lowing the overthrow of the Shah of Iran, the price of oil reached $40 per barrel. The American people responded to the oil crisis and an unexpected and dramatic decline in the demand for oil followed. The demand for energy also diminished. Electrical utilities, which had already implemented plans to substantially increase their supply of electricity, now discovered that the supply greatly exceeded the demand for electricity. Some utilities responded to this new economic environment by canceling plans for additional generating facilities including scheduled nuclear plants, some of which were then under construction.

A third unforeseen development which the utilities faced in the construction of nuclear plants was the increased inflation of the 1970s, the effect of which was to increase substantially the cost of building a nuclear plant. By adding millions to interest costs, cost overruns strained the cash flow positions of some utilities and thus impeded the ability of some utilities to raise capital to complete these projects. All of these unforeseen changes affected the Wolf Creek project. The project was delayed both by the post-Three Mile Island safety standards and construction problems which developed at the site. Although the original plans called for the Wolf Creek plant to start producing electricity in April 1981, production did not commence until September 1985. There is an excellent discussion of this historical background in an article by Professor Robert H. Jerry, II, entitled *Introduction to Wolf Creek Symposium*, 33 Kan. L. Rev. 419 (1985).

As the time for commencement of operations at the Wolf Creek plant approached, the three utilities involved in this case filed petitions with the KCC requesting the granting of appropriate electrical rates for the electricity to be produced. At this same time, regulatory agencies in other states were faced with the same or similar problems. In some states, state regulatory agencies had

to determine whether the costs of an abandoned nuclear plant should be included in an electrical utility's rate base. Where a nuclear plant had been completed and placed in operation, the state regulatory agency had the problem of determining whether the inflated construction costs of a nuclear facility had to be included in the rate base in a manner which would financially hurt the ratepayers, the consumers, and the general public. It is this same basic problem which was faced by the KCC in the case now before us.

Constitutional and Legal Principles Applicable in Rate-making Decisions

Before turning to the specific issues raised in this case, it would be helpful to discuss some of the general constitutional and legal principles applicable to rate-making decisions by state regulatory agencies. An important question to be considered is what a regulatory agency should seek to accomplish in such a case. The leading cases in this area clearly indicate that the goal should be a rate fixed within the "zone of reasonableness" after the application of a balancing test in which the interests of all concerned parties are considered. In rate-making cases, the parties whose interests must be considered and balanced are these:

(1) The utility's investors vs. the ratepayers;

(2) the present ratepayers vs. the future ratepayers; and

(3) the public interest.

The leading case in this area which has been followed by various state regulatory agencies is *Power Comm'n v. Hope Gas Co.*, 320 U.S. 591, 88 L. Ed. 333, 64 S. Ct. 281 (1944). The issue presented in *Hope* was whether there was a requirement of constitutional dimension that utility rates set by regulatory authorities be set at sufficiently high levels to *guarantee*, irrespective of counter-

vailing consumer interests, the continued financial integrity of the utilities concerned. Stated in another way, is a public utility entitled in every case to a reasonable return on its capital investments as a matter of law without regard to the interests of the ratepayers and consumers? In *Hope*, the United States Supreme Court addressed the considerations to be taken into account by the Federal Power Commission in setting "just and reasonable" rates for natural gas companies, as required by § 4(a) of the Natural Gas Act of 1938, 15 U.S.C. § 717 (1982). In applying the standard requiring "just and reasonable" rates, the *Hope* court emphasized that the focus of inquiry is properly upon the end result or "total effect" of the rate order, rather than upon the rate-setting methods employed. The court described the rate-setting process as a balancing process involving the weighing of certain enumerated interests of the consumer and of the investor. The court stated that the rate-making process involves a balancing of the investor and the consumer interests, and that public utility regulation does not insure that the business shall produce net revenues.

The decision in *Hope* was followed by *Permian Basin Area Rates Cases*, 390 U.S. 747, 770, 20 L. Ed. 2d 312, 88 S. Ct. 1344, *reh. denied* 392 U.S. 917 (1968), which held that the "just and reasonable" standard of the Natural Gas Act coincides with the applicable constitutional standards and any rate selected by a regulatory commission within the "broad zone of reasonableness" cannot properly be attacked as confiscatory.

There is an excellent discussion of these cases in *Pennsylvania Elec. v. Pennsylvania Pub. Util.*, —— Pa. ——, 502 A.2d 130 (1985), where the Supreme Court of Pennsylvania had before it an appeal in an electrical utility rate case involving a nuclear generating plant which had been so severely damaged as to render it no longer useful in the public service. The question was whether

the costs associated with the damaged nuclear plant should be removed from the rate base of the utilities. The court concluded that the Pennsylvania commission was not precluded from eliminating from the utility's rate base all costs associated with the unit of the nuclear power plant involved in a near meltdown or in determining that another unit which had previously been shut down for refueling and which remained shut down by order of NRC likewise was no longer useful in public service because its return to service was not imminent or certain. The court held that the decisions of the United States Supreme Court in *Hope* and *Permian Basin Area Rate Cases* did not establish, as a constitutional requirement, that the end result of a rate-making body's adjudication must be the setting of rates at a level that will, in any given case, guarantee the continued financial integrity of the utility. Rather, *Hope* requires only that the regulatory authority balance competing consumer and investor interests to determine just and reasonable rates providing a return on used and useful property.

The Pennsylvania Supreme Court noted *In re: Jersey Central Power & Light Co.*, No. A-162-81T2 (July 28, 1983), *cert. den.* 95 N.J. 217, 470 A.2d 433 (1983), which involved similar facts and where a similar result was reached. An appeal was taken to the United States Supreme Court which was subsequently dismissed for want of a substantial federal question. *Jersey Central Power & Light Co. v. Board of Public Utilities of New Jersey*, 466 U.S. 947, 80 L. Ed. 2d 533, 104 S. Ct. 2146 (1984).

This balancing concept is supported by other federal court decisions. In *Smyth v. Ames*, 169 U.S. 466, 544, 42 L. Ed. 819, 18 S. Ct. 418 (1898), the Supreme Court stated that it cannot be admitted that a railroad corporation maintaining a railroad under the authority of the state may fix its rates with a view solely to its own interests, and ignore the rights of the public. *Washing-*

ton Gas Light Co. v. Baker, 188 F.2d 11, 19 (D.C. Cir. 1950), holds that the valuation included in the rate base must meet the test of justness and reasonableness to the consumer as well as to the investor. In *FPC v. Memphis Light, Gas & Water Div.*, 411 U.S. 458, 474, 36 L. Ed. 2d 426, 93 S. Ct. 1723 (1973), the Supreme Court expressly recognized that rates cannot be determined just and reasonable unless consumer interests are protected. In addition, a number of state courts have held that utility rates must not be set so high as to constitute an unreasonable burden on the ratepayers. *State, Ex. Rel. Allain v. Miss. Public Serv. Com'n*, 435 So. 2d 608, 624 (Miss. 1983); *New England Tel. & Tel. Co. v. Public Utilities*, 390 A.2d 8, 30 (Me. 1978); *Central Me. Power Co. v. P. U. C.*, 150 Me. 257, 278, 109 A.2d 512 (1954).

The Supreme Court of Kansas has likewise recognized and applied the "zone of reasonableness" concept in *Southwestern Bell Tel. Co. v. State Corporation Commission*, 192 Kan. 39, 386 P.2d 515 (1963). Syllabus ¶ 17 states as follows:

> "There is an elusive range of reasonableness in calculating a fair rate of return. A court can only concern itself with the question as to whether a rate is so unreasonably low or so unreasonably high as to be unlawful. The in-between point, where the rate is most fair to the utility and its customers, is a matter for the State Corporation Commission's determination."

At page 58 of the opinion, the court recognizes the decision of the United States Supreme Court handed down in *Power Comm'n v. Hope Gas Co.*, 320 U.S. 591, which is discussed heretofore. See also *Midwest Gas Users Ass'n v. Kansas Corporation Commission*, 5 Kan. App. 2d 653, 659, 623 P.2d 924, *rev. denied* 229 Kan. 670 (1981). All of these cases clearly support the general principle that a state regulatory agency, in setting a rate for a public utility, must have as its goal a rate fixed within

the "zone of reasonableness" after an application of a balancing test in which the interests of all concerned parties are considered.

Kansas Statutory Provisions Applicable to Rate-making Cases

Under the constitutional separation of powers doctrine, the regulation of public utilities is legislative in nature. The legislature created the Kansas Corporation Commission and granted it full and exclusive authority and jurisdiction to supervise, control, and regulate the public utilities of this state and, when acting in the exercise of its delegated powers, the Commission is not a quasi-judicial body. *Cities Service Gas Co. v. State Corporation Commission*, 201 Kan. 223, 440 P.2d 660 (1968); *Midwest Gas Users Ass'n v. Kansas Corporation Commission*, 5 Kan. App. 2d 653.

Thus, public utility rate making is a legislative function, whether it is regulated by an administrative body or by the legislature itself. Prior to 1984, the legislature empowered the KCC by broad, non-specific statutes to exercise the rate-making function. By K.S.A. 66-101, the State Corporation Commission was given the authority to supervise and control public utilities and was empowered to do all things necessary and convenient for the exercise of such authority. K.S.A. 66-141 (Weeks), now K.S.A. 66-101g, provided that the statutory provisions granting authority, power, and jurisdiction to the Commission shall be liberally construed. K.S.A. 66-107 (Weeks), now K.S.A. 66-101b, provided the KCC with authority to require a public utility to furnish reasonably efficient and sufficient service and to establish "just and reasonable" rates.

During the 1984 legislative session, the Kansas legislature was faced with the controversy over the Wolf Creek power plant. With estimates predicting that electric power bills would increase from 40% to 110% when the

plant became operational, the demand from consumer groups, the media, and even large business users to "do something" about Wolf Creek had created a political imperative. The result was the passage of House Bill 2927, codified as K.S.A. 66-128 through 66-128k, which substantially broadened and made more specific the statutory authority of the Commission in rate-making cases to address such issues as excess capacity, management inefficiency, and imprudence in the acquisition, construction, or operation of a generating plant. For an excellent discussion of the 1984 legislation see the article by Robert Vancrum, entitled *The Wolf Creek Excess Cost—Excess Capacity Bill*, 33 Kan. L. Rev. 475 (1985).

K.S.A. 66-128 authorizes the KCC to determine the reasonable value of "all or whatever fraction or percentage of the property" of any public utility which is used and required to be used in its services to the public within the State of Kansas whenever the Commission deems the ascertainment of such value necessary in order to enable the Commission to fix fair and reasonable rates. K.S.A. 66-128a provides that nothing in K.S.A. 66-128b through 66-128i shall be construed to limit the authority of the KCC to review and evaluate the efficiency or prudence of any actions, including acquisition of excess capacity, or operating practices of any public utility for the purpose of establishing fair and reasonable rates. K.S.A. 66-128b provides that the KCC may require a public utility to defer the inclusion of all or any portion of the reasonable value of property determined not currently used and required to be used for public service and may require the phase-in of such value over any period of time and in such increments as it may determine to be appropriate.

K.S.A. 66-128c provides that the KCC, in determining the reasonable value of property under 66-128, shall have the power to evaluate the efficiency *or* prudence of acquisition, construction, or operating practices of that

utility. In the event the KCC determines that a portion of the costs of acquisition, construction, or operation were incurred due in whole or in part to a lack of efficiency or prudence, or were incurred in the acquisition or construction of excess capacity, the Commission shall have the power and authority to exclude those portions of the costs from the revenue requested by the utility. This section defines "excess capacity" to mean any capacity in excess of the amount used and required to be used to provide adequate and reliable service to the public within the State of Kansas as determined by the Commission. The Commission is empowered, within its discretion, to prohibit or reduce the return on all costs which were incurred in constructing, maintaining or operating excess capacity.

K.S.A. 66-128e authorizes the KCC to exclude from the value of utility property for rate-making purposes that portion of the costs attributable either to investment in excess capacity which was incurred due to lack of prudence in facility planning or lack of prudence in plant acquisition, construction, or operation. However, a finding of lack of prudence in capacity planning for a facility which in whole or in part represents excess capacity shall not be made by the KCC when a siting permit authorizing the construction of the facility has been issued under K.S.A. 66-1,162. It should be noted that, in the present case, there was no siting permit issued for the construction of Wolf Creek.

K.S.A. 66-128g is devoted to a recitation of the various factors to be considered by the Commission in making the determination of "prudence" or lack thereof in determining the reasonable value of electric generating property. K.S.A. 66-128g provides as follows:

> "66-128g. . . . (a) The factors which shall be considered by the commission in making the determination of 'prudence' or lack thereof in determining

the reasonable value of electric generating property, as contemplated by this act shall include without limitation the following:

"(1) A comparison of the existing rates of the utility with rates that would result if the entire cost of the facility were included in the rate base for that facility;

"(2) a comparison of the rates of any other utility in the state which has no ownership interest in the facility under consideration with the rates that would result if the entire cost of the facility were included in the rate base;

"(3) a comparison of the final cost of the facility under consideration to the final cost of other facilities constructed within a reasonable time before or after construction of the facility under consideration;

"(4) a comparison of the original cost estimates made by the owners of the facility under consideration with the final cost of such facility;

"(5) the ability of the owners of the facility under consideration to sell on the competitive wholesale or other market electrical power generated by such facility if the rates for such power were determined by inclusion of the entire cost of the facility in the rate base;

"(6) a comparison of any overruns in the construction cost of the facility under consideration with any cost overruns of any other electric generating facility constructed within a reasonable time before or after construction of the facility under consideration;

"(7) whether the utility having an ownership interest in the facility being considered has provided a method to ensure that the cost of any decommis-

sioning, any waste disposal or any cost of clean-up of any incident in construction or operation of such facility is to be paid by the utility;

"(8) inappropriate or poor management decisions in construction or operation of the facility being considered;

"(9) whether inclusion of all or any part of the cost of construction of the facility under consideration, and the resulting rates of the utility therefrom, would have an adverse economic impact upon the people of Kansas;

"(10) whether the utility acted in the general public interest in management decisions in the acquisition, construction or operation of the facility;

"(11) whether the utility accepted risks in the construction of the facility which were inappropriate to the general public interest to Kansas;

"(12) any other fact, factor or relationship which may indicate prudence or lack thereof as that term is commonly used.

"(b) The portion of the cost of a plant or facility which exceeds 200% of the 'original cost estimate' thereof shall be presumed to have been incurred due to a lack of prudence. The commission may include any or all of the portion of cost in excess of 200% of the 'original cost estimate' if the commission finds by a preponderance of the evidence that such costs were prudently incurred. As used in this act 'original cost estimate' means:

"(1) For property of an electric utility which has been constructed without obtaining an advance permit under K.S.A. 60-1,159 *et seq.*, and amendments thereto, the 'definitive estimate'; and

"(2) for property of an electric utility which has been constructed after obtaining an advance permit

> under K.S.A. 66-1,159 *et seq.*, and amendments thereto, the cost estimate made by the utility in the process of obtaining the advance permit."

The other provisions enacted in 1984 are not material in this case and need not be mentioned.

In 1985, the legislature adopted additional statutory amendments to clarify the Commission's authority, power, and jurisdiction to supervise and control public utilities. See K.S.A. 66-101 through 66-101h. These various statutes grant to the KCC broad authority to do all things necessary and convenient for the establishment of just and reasonable rates in order to maintain reasonably sufficient and efficient service from electric public utilities. The Commission is given powers to investigate and to hold hearings. K.S.A. 66-101g declares that the statutory powers shall be liberally construed, and all incidental powers necessary to carry into effect the provisions of the act are expressly granted to and conferred upon the Commission. It should be noted that all of these statutory amendments passed in 1984 and 1985 were in full force and effect at the time the KCC orders were entered in the three cases now before us on this appeal.

In their briefs, the utilities challenge the constitutionality of these statutes for a variety of reasons. They argue that K.S.A. 66-128 *et seq.* are unconstitutionally vague because an ordinary person exercising ordinary common sense could not understand their provisions. We find no merit to this contention. The thrust of the KCPL argument claiming vagueness is that "prudence" is not defined anywhere in the statutes. In our judgment, the statutory provisions are as definite and clear as reasonably could be expected in a statute of this type. The Kansas statutory provisions are much more definite and certain than statutes involving the same subject matter found in other jurisdictions. We also note that K.S.A. 66-128g(12), in effect, states that "prudence or lack thereof" means as that term is commonly used. Black's

Law Dictionary 1104 (5th ed. 1979) defines "prudence" as "[c]arefulness, precaution, attentiveness and good judgment."

The utilities also attack K.S.A. 66-128 *et seq.* as an unlawful delegation of legislative authority because the statutory provisions do not contain reasonably clear standards to control the KCC in the exercise of its authority. It is well established in Kansas that a delegation of legislative authority to an administrative body must fix a reasonably clear standard which governs the exercise of that authority. *State, ex rel., v. Fadely*, 180 Kan. 652, 308 P.2d 537 (1957); *State, ex rel., v. Hines*, 163 Kan. 300, 182 P.2d 865 (1947).

In this case, the statutes enacted in 1984 and 1985 authorize the Commission to apply certain prescribed standards and requirements in setting the rates for the various utilities. The KCC's expertise in the field is vast, and the Commission must, of necessity, have considerable discretion in order to regulate utilities in the public interest. The statutes also contain a protection against arbitrary action by the KCC. The KCC is required to state expressly its findings of fact and conclusions of law. Such a provision prevents arbitrary action and facilitates judicial review, thus insuring a lawful exercise of legislative authority.

One other matter should be noted in regard to the determination of rate-making cases. In arriving at its decision, the KCC, of necessity, must be afforded a wide discretion in the methodology to be utilized in approaching the complex problems involved. The field of public utility regulation is a highly complex field and requires a great amount of expertise in arriving at a result which is fair and just to all interested parties.

In *Southwestern Bell Tel. Co. v. State Corporation Commission*, 192 Kan. 39, Syl. ¶ 3, we find the following language:

> "A public utility has no vested right in any one particular formula or method, and the State Corporation Commission is not bound to use any particular formula, or combination of formulae, in valuing a public utility's property for rate making purposes. The State Corporation Commission should receive and consider all evidence which has a relevant bearing on reasonable value and then determine what formula, or combination of formulae, it believes should be used under the facts and circumstances of the case to arrive at a reasonable value of the property for rate making purposes."

See also *Central Kansas Power Co. v. State Corporation Commission*, 221 Kan. 505, 512, 561 P.2d 779 (1977).

Scope of Review

We should next consider the scope of judicial review where an appeal is taken to the courts from an order of the KCC in a rate-making case. The scope of review is discussed in the decision of the Court of Appeals in *Midwest Gas Users Ass'n v. Kansas Corporation Commission*, 3 Kan. App. 2d 376, 380-81, 595 P.2d 735, *rev. denied* 226 Kan. 792 (1979), where the court stated:

> "K.S.A. 1978 Supp. 66-118d limits judicial review of an order by the commission to determining whether the order is 'lawful' or 'reasonable,' *Kansas Gas & Electric Co. v .State Corporation Commission*, 218 Kan. 670, Syl. ¶ 1, 544 P.2d 1396 (1976). A court has no power to set aside such an order unless it finds that the commission acted unlawfully or unreasonably. *Jones v. Kansas Gas and Electric Co.*, 222 Kan. 390, 396-7, 565 P.2d 597 (1977). An order is 'lawful' if it is within the statutory authority of the commission, and if the prescribed statutory and procedural rules are followed in making the order. *Central Kansas Power Co. v. State Corporation Commission*, 221 Kan. 505, Syl. ¶ 1, 561 P.2d 779 (1977).

An order is generally considered 'reasonable' if it is based on substantial competent evidence. *Jones v. Kansas Gas and Electric Co.*, 222 Kan. 390, Syl ¶ 2.

"The legislature has vested the commission with wide discretion and its findings have a presumption of validity on review. *Central Kansas Power Co. v. State Corporation Commission*, 221 Kan. at 511. Since discretionary authority has been delegated to the commission, not to the courts, the power of review does not give the courts authority to substitute their judgment for that of the commission. *Central Kansas Power Co. v. State Corporation Commission*, 206 Kan. 670, 675, 482 P.2d 1 (1971). The commission's decisions involve the difficult problems of policy, accounting, economics and other special knowledge that go into fixing utility rates. It is aided by a staff of assistants with experience as statisticians, accountants and engineers, while courts have no comparable facilities for making the necessary determinations. *Southwestern Bell Tel. Co. v. State Corporation Commission*, 192 Kan. 39, 48-9, 386 P.2d 515 (1963). Hence a court may not set aside an order of the commission merely on the ground that it would have arrived at a different conclusion had it been the trier of fact. It is only when the commission's determination is so wide of the mark as to be outside the realm of fair debate that the court may nullify it. *Kansas-Nebraska Natural Gas Co. v. State Corporation Commission*, 217 Kan. 604, 617, 538 P.2d 702 (1975); *Graves Truck Line, Inc. v. State Corporation Commission*, 215 Kan. 565, Syl. ¶ 5, 527 P.2d 1065 (1974)."

These same rules were recognized in *Ash Grove Cement Co. v. Kansas Corporation Commission*, 8 Kan. App. 2d 128, 650 P.2d 747 (1982), and also by this court in *Oilfield Fluid Motor Carriers v. Kansas Corporation Comm'n*, 234 Kan. 983, 986, 677 P.2d 982 (1984).

In 1984, the Kansas legislature codified these principles when it enacted the "Act for Judicial Review and Civil Enforcement of Agency Action" contained in K.S.A. 77-601 through 77-627. K.S.A. 77-603 makes the act applicable to all agencies not specifically exempted by statute. K.S.A. 77-621 specifically sets forth the scope of review of administrative decisions by the courts and provides as follows:

> "77-621. Scope of review. (a) Except to the extent that this act or another statute provides otherwise:
>
> "(1) The burden of proving the invalidity of agency action is on the party asserting invalidity; and
>
> "(2) the validity of agency action shall be determined in accordance with the standards of judicial review provided in this section, as applied to the agency action at the time it was taken.
>
> "(b) The court shall make a separate and distinct ruling on each material issue on which the court's decision is based.
>
> "(c) The court shall grant relief only if it determines any one or more of the following:
>
> "(1) The agency action, or the statute or rule and regulation on which the agency action is based, is unconstitutional on its face or as applied;
>
> "(2) the agency has acted beyond the jurisdiction conferred by any provision of law;
>
> "(3) the agency has not decided an issue requiring resolution;
>
> "(4) the agency has erroneously interpreted or applied the law;
>
> "(5) the agency has engaged in an unlawful procedure or has failed to follow prescribed procedure;

"(6) the persons taking the agency action were improperly constituted as a decision-making body or subject to disqualification;

"(7) the agency action is based on a determination of fact, made or implied by the agency, that is not supported by evidence that is substantial when viewed in light of the record as a whole, which includes the agency record for judicial review, supplemented by any additional evidence received by the court under this act; or

"(8) the agency action is otherwise unreasonable, arbitrary or capricious.

"(d) In making the foregoing determinations, due account shall be taken by the court of the rule of harmless error."

K.S.A. 66-118a provides that the Court of Appeals shall have exclusive jurisdiction of proceedings for review of an order or decision of the State Corporation Commission arising from a rate hearing when a public utility is a necessary party. Here, the consolidated appeal was transferred from the Court of Appeals to the Supreme Court under the authority of K.S.A. 20-3018(c) and K.S.A. 20-3017.

Proceedings before the KCC

In 1979, when the problem of rapidly increasing construction costs of Wolf Creek became evident, a docket was created by the KCC for the purpose of initiating a general investigation of the projected costs so that data could be collected for use in rate cases which would be filed after the Wolf Creek facility was completed. In November of 1984, each of the three utilities filed an application requesting proposed rate increases to become effective at the time the Wolf Creek plant went into operation.

The magnitude of the rate increases sought was unprecedented in Kansas. KCPL suggested a phase-in of the increased rates over a four-year period. The first-year increase requested was in the amount of $45.3 million, a 25% increase. Over the phase-in period, a total increase of $110.6 million was sought for a 65% increase over current rates. KGE proposed a phase-in proposal seeking a 40% increase in the amount of $144.9 million in 1985 and four subsequent annual increases for a total of $373 million. The percentage increase in rates at the end of the phase-in period for KGE would be 106%, as opposed to a one-time 95% increase. KEPCo sought a 40% increase in its rates in the amount of $26.9 million annually.

In requesting the proposed rate increases, the utilities sought to recover their shares of various expenses for Wolf Creek, including operations and maintenance, fuel, and annual funding for decommissioning of the plant. Furthermore, the companies sought a return on the total construction costs of the Wolf Creek plant through annual depreciation expenses and, in addition, a return on the costs of construction at an overall rate of return.

The KCC held hearings on the applications for rate increases during the months of May, June, and July of 1985. The Commission heard the testimony of over 160 technical witnesses and admitted several hundred exhibits. The 58-volume transcript covers 17,830 pages. The Commission held 19 public hearings at various places in the companies' service territories, hearing the testimony of 475 ratepayers. Briefs were then submitted to the KCC by counsel for the utilities, the Commission staff, and various intervenors. On September 27, 1985, the KCC issued its order granting in part and denying in part the rate increases requested by the utilities. Motions for a rehearing were filed and heard. The original orders of the KCC were modified in certain respects and the balance of the motions were denied in November

1985. The utilities sought judicial review of the orders of the KCC in the Court of Appeals. The cases were subsequently transferred to the Kansas Supreme Court and consolidated into one appeal.

The overall effect of the KCC orders may be summarized as follows:

(1) The utilities received virtually all they requested as expenses to operate and maintain the plant and to decommission it at the end of its life.

(2) The KCC determined that a total of $183 million, or about 10% of the costs of construction of the Wolf Creek plant, was inefficiently and imprudently incurred. The utilities were denied both a recovery *of* and a return *on* that portion of the costs of the construction.

(3) The KCC allowed all of the remaining 90% of the Wolf Creek construction costs to be recovered through annual depreciation expenses over the expected life of the plant.

(4) Of that 90%, no current return or profit was permitted on approximately $944 million on the basis that a portion of the costs constituted excess physical capacity, because it was not used and required to be used to provide current services to the ratepayers. The disallowance for the excess physical capacity was allocated in the amount of approximately $716 million to the rate base of KGE and $228 million to the rate base of KCPL. As to KEPCo, the KCC found that it did not have excess physical capacity and, therefore, no deduction from its rate base was required. The excluded amounts will remain eligible in the future for a rate of return as the excess capacity is utilized to serve the ratepayers.

(5) Of the remaining 90% of capital costs which were held to be prudently incurred, the KCC disallowed the sum of approximately $266 million on the basis that it constituted excess economic capacity. The disallow-

ance for excess economic capacity was allocated to reduce the rate base of KGE approximately $193 million and to reduce the rate base of KCPL approximately $73 million. No deduction was made for this factor from the rate base of KEPCo. The capital costs on which a return was disallowed were subject to increases in the future, if the economic value increases in comparison with other plants. Thus, the amounts excluded at the time of the order will remain eligible in the future for a rate of return to each utility.

(6) Although, as noted above, no return was allowed on those construction costs found to be imprudent or for the costs found to be excess physical capacity and excess economic capacity, the KGE and KCPL carrying costs will be recovered by being amortized over the life of the plant on a straight-line basis.

Stated simply, the utilities were not and will not be permitted to recover the 10% of the construction costs found to be imprudently incurred. The utilities are permitted to recover all of the 90% of the total construction costs found to be prudently incurred through annual depreciation expense over the expected life of the plant. The KCC set limitations on the right of the utilities to a return *on* that portion of the construction costs found to constitute excess physical capacity and excess economic capacity with the possibility of those costs being included in the rate base at some time in the future.

The three basic areas of dispute in this appeal arise from the deductions of those portions of the construction costs from the rate base of each utility found to be imprudent costs of construction, excess physical capacity, and excess economic capacity.

In connection with these areas of dispute, the utilities have raised many issues of law for the court's consideration. We will discuss each of the basic areas of dispute separately.

Deduction of Imprudent Construction Costs from the Rate Base

The rate-setting approach for the KCC is divided into two phases—revenue required and rate design. By "revenue required" is meant the additional money, if any, that the company needs to meet its obligations and also to have an opportunity to earn a fair profit. Rate design is the process by which the revenue requirement will be spread over the various classes of customers. That process is not involved in this appeal.

In order to arrive at the revenue requirement, three factors must be carefully analyzed by the KCC:

(1) The rate base;

(2) The operating expenses; and

(3) The percentage rate of return to be applied to the rate base.

The basic issues presented in this case involve the determination of the rate base. The "rate base" may be defined as the dollar amount of a given utility's investment in the plant and property "used and required to be used" in supplying the service that the utility has undertaken to furnish. The rate base is the valuation sought under the provisions of K.S.A. 66-128. The rate base includes items such as the value of generation and transmission facilities and rights-of-way, and equipment of all kinds. Ordinarily, discarded and abandoned property due for retirement is excluded from the rate base. It is the rate base on which the owners of the utilities have a right to earn a fair return. The rate base multiplied by the fair rate of return yields a sum in dollars that the KCC considers reasonable.

There are a number of methods which regulatory agencies use in determining the rate base for a particular utility. The original cost of construction of a facility

may be utilized but may be reduced where a portion of the cost is due to imprudent or unjustified expenses. See *San Diego Land & Town Co. v. Jasper*, 189 U.S. 439, 47 L. Ed. 892, 23 S. Ct. 571 (1903). Another method used to establish the rate base is the determination of the fair or reasonable value of the property. K.S.A. 66-128 provides that the KCC shall determine the reasonable value of the property of the utility which is used and required to be used in its services to the public in order to enable the Commission to fix fair and reasonable rates. In *State, ex rel. v. Telephone Co.*, 115 Kan. 236, 261, 223 Pac. 771 (1924), it was held that the original cost is not the measure of the rate base but rather the "going-concern value" of the plant. In *Southwestern Bell Tel. Co. v. State Corporation Commission*, 192 Kan. 39, as noted heretofore, it was held that the KCC is not bound to use any particular formula, or combination of formulae, in valuing a public utility's property for ratemaking purposes. Any evidence having a bearing on reasonable value may be considered, and the KCC may then use any formula or combination of formulae that it may believe necessary for arriving at a reasonable basis for rate-making purposes.

At the hearing before the KCC, a great deal of expert testimony was presented by the utilities showing that great efficiency and prudence was used by the contractor in the construction of the Wolf Creek plant. To the contrary, the staff of the KCC presented other competent experts who testified that a substantial portion of the construction costs was insufficiently and imprudently incurred. The findings of the KCC set forth this testimony in great detail. It would serve no useful purpose to restate the testimony of the various expert witnesses who testified on behalf of the parties. As noted heretofore, the KCC disallowed a total of approximately $183,000,000 or about 10% of the total cost of construction as costs which were imprudently incurred.

The KCC's disallowance for imprudent construction costs consisted of three distinct quantifications:

(1) $37,961,400 of direct and associated indirect costs attributable to disallowed man-hour overruns;

(2) $244,561,400 of indirect and overhead costs attributable to disallowed schedule delays; and

(3) $450,000 of the fees paid to the primary contractor, Daniel International Corporation, for work which was not performed and which was performed by other contractors.

There is substantial, competent evidence in the record to support the disallowances in each of these categories. There was evidence from which the KCC could reasonably find that KGE and KCPL, as owners of the plant, were imprudent and inefficient in the manner in which they supervised the construction of the plant. We recognize, of course, that there was expert testimony to support findings of both imprudence on the one hand and prudent management control on the other. Perhaps if this court had the obligation and authority to determine this issue, it might have decided it differently. However, because there is substantial, competent evidence in the record to support the findings of the KCC as to imprudent construction costs, we are bound by those findings and cannot substitute our judgment for that of the Commission.

The utilities, however, raise a number of legal issues specifically relating to the finding of imprudent costs. They maintain that the KCC, in determining imprudent costs, applied an unreasonable standard of perfection rather than mere prudence, although they recognize that K.S.A. 66-128c afforded the Commission the power to evaluate the construction of Wolf Creek and to exclude construction costs incurred as the result of imprudence or mismanagement. They complain that there is no definition of prudence in the statutes.

In construing statutes, words and phrases should be construed according to context and approved usage of the language, and words in common use are to be given their natural and ordinary meaning. *Jackson v. City of Kansas City*, 235 Kan. 278, 680 P.2d 877 (1984). As noted heretofore in this opinion, the word "prudence" has a common and ordinary meaning. The various factors listed in K.S.A. 66-128g(a) provide sufficient guidelines for determining prudence which obviates the need for a definition of the term.

The utilities complain that the KCC did not accept their evidence consisting of a comparative analysis of the construction costs and schedules at Wolf Creek with similar factors at other nuclear power plants constructed during the same period. The KCC rejected this evidence on the basis that the comparative analysis was incomplete, misleading, or irrelevant, and did not support the owners' conclusions. This the KCC had a right to do.

The utilities argue that the KCC used hindsight in determining imprudence rather than considering performance as of the time construction was in progress. This contention is not supported by the record. We hold that the KCC did not determine the issue of imprudence solely on the basis of hindsight, but rather on the basis of substantial, competent evidence.

The owners attack K.S.A. 66-128g(b) as violative of due process because it creates a rebuttable presumption that construction costs of a plan or facility have been incurred due to a lack of prudence as to that portion of the total costs which exceeded 200% of the "original cost estimate." Presumptions may be created by statute if there is a rational connection between the fact proved and the fact presumed. The test in this case is whether a logical inference of management imprudence can be drawn from evidence of total cost greater than 200% of the original cost estimate, or whether there is some

justification in public policy for such an inference to be drawn. In our judgment, management imprudence can reasonably be inferred from the fact a particular project cost exceeded by more than 200% the definitive estimate. Other states by statute have imposed a cap or limitation on the construction costs of nuclear plants. *Re Seabrook Unit No. 1*, 63 P.U.R. 4th 673 (Conn. 1984.) We believe that the presumption is logical in the context of utility regulation, where the ratepayer normally reimburses the utility for its expenses. The fact that there is such a presumption does not determine the issue, for the KCC still has the duty to examine the reasonableness of the construction costs, which is exactly what the KCC did regarding the Wolf Creek costs in this case.

The utilities next maintain that K.S.A. 66-128c only authorizes the KCC to exclude the imprudent costs of construction *from the revenue requested and not from the utility's base rate.* That statute provides, in substance, that the KCC, in determining the *reasonable value of property* under K.S.A. 66-128, shall have the power to evaluate the efficiency or prudence of acquisition, construction or operating practices of that utility. If inefficiency or imprudence is found, the KCC has the right to exclude all or a part of those costs from the revenue requested by the utility. As noted above, it is the rate base which must first be determined before an appropriate return may be allowed by a regulatory agency. The rate base is the major focal point of a rate proceeding. In order for the KCC to reduce a utility's requested revenue increase by costs found to be inefficiently or imprudently incurred, it must, of necessity, reduce the rate base by the amount of the cost disallowance.

In the past, the Kansas courts have held that the exclusion of certain disallowances from the rate base is a discretionary function of the KCC. *Kansas City Power & Light Co. v. KCC*, 224 Kan. 86, 88, 578 P.2d 254 (1978); *Kansas-Nebraska Natural Gas Co. v. Kansas Corporation*

Commission, 4 Kan. App. 2d 674, 610 P.2d 121, *rev. denied* 228 Kan. 806 (1980).

KEPCo, in its brief, takes the position that the KCC decision disallowing imprudent construction costs in KEPCo's rate base is unlawful on the basis that the Commission cannot make such a disallowance without finding KEPCo itself to be imprudent. KEPCo argues that the disallowance for imprudent construction costs cannot be attributed to KEPCo, because those cost overruns were imprudently incurred prior to its acquisition of a 6% ownership in the Wolf Creek plant. In its order, the Commission found as follows:

> "20. The Commission finds that KEPCo should be held accountable for its proportional share of cost incurrence found to be imprudent notwithstanding the fact that many of the costs found to be imprudent were incurred prior to the purchase of KEPCo's six percent interest in 1981. The record appears clear that KEPCo did not analyze the cause of Wolf Creek cost overruns to determine the reasonableness of incurrence prior to its 1981 purchase of a six percent share. . . .
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> "Having failed to inquire into the reasonableness of Wolf Creek cost incurrence prior to (or subsequent to) its purchase of an interest in Wolf Creek, the Commission finds that imprudence in cost incurrence prior to the purchase of KEPCo's interest should be imputed to KEPCo and that KEPCo is responsible for imprudence in cost incurrence subsequent to the purchase of its interest. The Commission finds that KEPCo ratepayers should be shielded from imprudently incurred costs and herein excludes such costs from KEPCo's rate base. The Commission distinguishes imprudently incurred costs which are excluded from rate base from questions of economic loss resulting from excessively expensive capacity.

> The latter costs are appropriately shared by ratepayers and owners. That objective is achieved in the case of KEPCo by collection of costs through rates."

The Commission disallowed $22,818,000 from KEPCo's rate base. None of the parties have cited a case directly on point. K.S.A. 66-128c expressly provides the Commission with the authority to evaluate the efficiency or prudence of *acquisition* as well as construction practices of that utility in disallowing imprudent costs.

In the present case, the Commission found that KEPCo failed to analyze the causes or determine the reasonableness of the Wolf Creek cost overruns prior to its *acquisition* or purchase of Wolf Creek in 1981. Thus, we believe that it was within the Commission's power to disallow those amounts of overruns from KEPCo's rate base. Furthermore, if a portion of the cost of construction was imprudently incurred, that situation would not be changed simply because KEPCo purchased a share of the plant at a later time. KEPCo is not in the position of a *bona fide* purchaser for value. It takes its share of ownership in the plant subject to any imprudent construction disallowance.

The KCC's duty was to determine the fair value of the plant. In so doing, it had the authority to eliminate those portions of the construction costs which were inefficiently or imprudently incurred. The KCC requested KEPCo to come up with a plan to take care of any financial problems caused by its order by means of a surcharge or otherwise. In our judgment, the KCC had the power to handle the matter in that way. Although the parties apparently agree that KEPCo's shareholders and ratepayers are the same people, we will leave it up to the future determinations of the KCC as to the appropriate action required to solve any problems that might remain. KEPCo may still appeal any later order it deems unlawful or otherwise improper.

We have considered all of the contentions of the utilities and the evidence in the record in this case and have concluded that the KCC's disallowance of those construction costs it found to have been imprudently incurred was supported by substantial, competent evidence, was within the statutory powers of the KCC, and was neither unlawful, arbitrary, nor capricious.

Deduction of Excess Physical Capacity from the Rate Base

The KCC, in its order, found that approximately $944,000,000 of the prudent construction costs should be excluded from the rate base for the reason that a portion of these costs constituted excess physical capacity, because part of the plant was not "used or required to be used" to provide current services to the ratepayers. This disallowance for excess physical capacity was allocated in the amount of approximately $716,000,000 to the rate base of KGE and $228,000,000 to the rate base of KCPL. No deduction was made from the rate base of KEPCo. KGE and KCPL maintain that this order of the KCC was unreasonable and unlawful.

The cases in this field hold that a utility is not necessarily entitled to a return and profit on its investment in a new generating plant simply because it acted prudently in deciding to build and in actually constructing the plant. It is the usual practice for a state regulatory commission to inquire whether a new plant is "used and useful in rendering service to the public." The Kansas statutes enacted in 1984 varied this test slightly. K.S.A. 66-128 requires the KCC to determine the reasonable value of all or *whatever fraction or percentage of the property of* any public utility which is "used and required to be used" in its service to the public within the State of Kansas.

K.S.A. 66-128c defines "excess capacity" to mean any capacity in excess of the "amount used and required to

be used" to provide adequate and reliable service to the public. The KCC is authorized in its discretion to prohibit or reduce the return costs incurred in constructing, maintaining, or operating excess capacity. K.S.A. 66-128b authorizes the Commission to require a public utility to defer inclusion of the reasonable value of property determined to be not currently used and required to be used and may require the phase-in of such value over any period of time or in such increments as it deems to be appropriate.

Other state regulatory commissions have reached similar results under the simpler and more traditional "used and useful" test by determining: (1) Whether the utility has constructed excess capacity; (2) what effect such excess capacity should have on the calculations of the revenue requirement; and (3) which plants to exclude from the rate base in the event of excludable excess capacity. The statutory provisions for excluding excess capacity are intended to prohibit a utility from earning a return on an investment which is not being used to accomplish the utility's ultimate goal of providing services to its customers.

In determining the excess physical capacity of Wolf Creek in this case, the KCC stated that the factors to be considered are: (1) Peak demand or responsibility, (2) reserve margin, and (3) available capacity. In determining available capacity, the Commission used the companies' accredited capacity figures. The Commission also found certain generation facilities were available for use even though the companies claimed such facilities had been retired, including KCPL's Hawthorn Units 1 and 2.

The Commission ultimately found that 327 megawatts (MW) of KGE's available capacity and 314 MW of KCPL's available capacity were not used and required to be used and thus constituted excess physical capacity. It must be emphasized again that the KCC did allow a full recovery of those costs through depreciation. The KCC

denied KGE and KCPL only a return or profit on those costs. The KCC also recognized that inclusion in the rate of such costs or a portion thereof would be subject to future KCC orders as more of Wolf Creek became used and required to be used.

The KCC recognized that, in determining excess capacity, electric utilities must be permitted to plan for the future and that it would be ridiculous to construct generating plants only when the need arises and without anticipating future growth. *Kansas Gas & Electric Co. v. State Corporation Commission*, 218 Kan. 670, 677, 544 P.2d 1396 (1976). The KCC selected the year 1990 as the reference year, allowing for five years of projected growth in peak demand from 1985, when Wolf Creek was to commence its operations. The KCC thus set a five-year period for a planning horizon or load forecast.

The KCC also determined the reserve margins for each utility sufficient to cover any day-to-day variations in operating conditions. All utilities must have some reserve capacity to protect against shortages caused by occasional plant shutdowns. The utility should be able to recover investments in, and a profit on, that reserve capacity. The problem is to establish a reserve margin that is high enough to provide reliable and adequate service, but not so high that customers are charged for unnecessary plant capacity. The expert witnesses suggested that a 15% to 25% reserve margin was required. The KCC considered the testimony of the various experts and found that a reserve margin of 20% was justified.

The utilities maintain that the Commission did not apply proper legal standards in determining excess capacity. We find this contention to be without merit. The standards applied were those required by the 1984 Kansas statutes discussed above.

The utilities contend that the Commisson arbitrarily, unreasonably, and erroneously chose the year 1990 to calculate the owners' system capacity balances. In its

findings, the Commission noted that the selection of a reference year was difficult, because no witnesses had proposed standards for selection of a reference year. We cannot say that the selection of 1990 was arbitrary. It provided a five-year planning horizon perspective which is reasonable. We hold that the selection of the reference year of 1990 was not arbitrary. This is especially true because the Commission, in its order, recognized that if there were changes in the demand for electricity in the years to some, the owners could seek the Commission's approval to include more of Wolf Creek in the rate base.

Likewise, the contention of the utilities that the Commission's peak demand forecast did not consider any possible increase in the demand for electricity generated by lower rates is not persuasive. If future power demands exceed the KCC's forecast because of price elasticity, the utilities may request another hearing before the Commission.

KCPL maintains that the Commission's inclusion of 41 MW of purchased power in KCPL's available capacity while excluding all purchased power in determining KEPCo's available capacity is a denial of equal protection of the law. The Commission took the position that KEPCo is not similarly situated with KGE and KCPL. Prior to Wolf Creek, the operations of KEPCo were totally reliant on purchased power to meet their load requirements. KEPCo elected to become an owner of a share of the electric generating plant at Wolf Creek rather than remaining a wholesaler of electricity. KEPCo is different from the other two utilities because KEPCo is an electric cooperative, not a shareholder utility. The difference is discussed in *Sekan Electric Coop. Ass'n v. Kansas Corporation Commission*, 4 Kan. App. 2d 477, 609 P.2d 188 (1980), where an electric cooperative was treated differently from an investor-owned utility in regard to "equity returned capital." The court pointed out that a cooperative does not secure equity by stock offerings in the marketplace and a return large enough to pay dividends

is not required to attract equity capital or to make a cooperative financially sound.

KEPCo is a nonprofit generating and transmitting wholesale distributor of electricity to its member rural electric cooperatives. The shareholders or stockholders are the ratepayers. The record shows that KEPCo was required to purchase a portion of the electricity transmitted to obtain the lines to get the electricity to its customers. KEPCo and the other utilities are not similarly situated and we cannot say that the Commission's order violated KCPL's right to equal protection.

KCPL contends that the Commission erroneously included KCPL's Hawthorn Units 1 and 2 in determining that utility's available capacity because those units have been retired from service. The addition of those units added an additional 130 MWs to KCPL's available capacity in 1990. The evidence presented by KCPL showed that Hawthorn Units 1 and 2 are fossil fuel-fired plants placed in inactive reserve by KCPL in 1984 and retired on December 31, 1984, but they could be rehabilitated in the future, if an additional need for electricity arose. The Commission found that the units were retired only in an accounting sense and were "retired" long before the previously scheduled retirement dates of 1991, which would correspond with a normal 40-year life for fossil fuel steam plants. Furthermore, although the evidence regarding Hawthorn Units 3 and 4 was similar, the Commission did not include them in the available capacity. We have concluded that the Commission acted reasonably and considered the interests of all parties in arriving at its decision.

KGE complains that the finding of the Commission that a portion of Wolf Creek is excess capacity is unreasonable because Wolf Creek replaced the older KGE gas/oil units, which Wolf Creek was constructed to and did displace. We find no merit to this contention. It was the construction of Wolf Creek that created the excess

capacity. A regulatory Commission has broad discretion to determine which plant constitutes excess capacity. Furthermore, as older units become so obsolete that their retirement is necessary, that fact will be reflected in future orders of the Commission.

We have considered all of the legal issues raised by the utilities and considered the record as a whole. We have concluded that there is substantial, competent evidence to support the findings of the KCC in determining excess physical capacity, and that the Commission followed the statutory standards and exercised its discretion in a lawful manner.

Deduction of Excess Economic Capacity from the Rate Base

After determining that disallowances from the rate base should be made for imprudent construction costs and excess physical capacity, the Commission concluded that an economic evaluation of Wolf Creek was necessary. The Commission was impressed by testimony that, apart from whether excess physical capacity exists, a nuclear plant may represent capacity which is not economical because it has excessive capital costs when compared to alternative types of generating facilities.

The Commission found from the evidence that Wolf Creek was an extraordinarily expensive means of providing electric generating capacity. It valued Wolf Creek at a cost of $1290 per KW, which included an allowance for the lower operational costs of Wolf Creek compared to coal plants. The Commission considered the costs of construction of a goal generating plant as a benchmark for its evaluation because the greater capital costs for the Wolf Creek nuclear facility were of doubtful economic benefit to the ratepayers. The Commission concluded that no profit or return on that economically inefficient excess should be allowed KGE or KCPL. However, as part of an overall risk-sharing approach, the Commission did

allow total recovery of those costs through depreciation. Because the KEPCo shareholders are the same people as the ratepayers, the Commission found that risk sharing was accomplished without an explicit exclusion from KEPCo's rate base.

In determining that there should be a disallowance from the rate bases of KGE and KCPL for excess economic capacity, the Commission balanced the interests of the utility investors with the interests of the ratepayers. In doing so, it used a risk-sharing approach. In *Kansas Gas & Electric Co. v. State Corporation Commission*, 218 Kan. at 674, this court stated that, in fixing the rates of an electrical utility under K.S.A. 66-128, the Commission has a two-phase duty in determining the rate base:

(1) To determine the property of a utility used or required to be used in its services to the public, and

(2) to ascertain the reasonable value of such property whenever it deems the ascertainment of such value is necessary to fix fair and reasonable rates. K.S.A. 66-128 was amended in 1984 to authorize the Commission to determine the fraction or percentage of a facility that is used and required to be used.

Under K.S.A. 66-128c, the Commission is empowered to evaluate the efficiency or prudence of acquisition, construction, or operation of a utility. One of the factors to be considered for determination of the reasonable value of electric generating property set forth in K.S.A. 66-128g is factor No. 11, which requires the Commission to consider whether the utility accepted risks in the construction of the facility which were inappropriate to the general public interest to Kansas. That is obviously a legislative recognition of the risk-sharing approach.

In using the risk-sharing approach to arrive at the reasonable value of Wolf Creek, the Commission looked to the factors in K.S.A. 66-128g(a) and discussed the evaluation with respect to (1) the owners' decision to

build and continue Wolf Creek; (2) the economic impact and rate comparisons; and (3) the risk assumptions and sharing which included a finding that the owners accepted enormous risks in building Wolf Creek.

The utilities contend, in substance, that the Commission erred in applying its risk-sharing approach and that it should have evaluated Wolf Creek at its actual prudent cost without consideration of the impact of the proposed rate increases on the ratepayers and the general public. The balancing of the rights of the investors and ratepayers and consideration of risk sharing is not a new procedure in Kansas. In *Kansas Power & Light Co. v. Kansas Corporation Commission*, 5 Kan. App. 2d 514, 525-29, 620 P.2d 329 (1980), *rev. denied* 229 Kan. 670 (1981), the Court of Appeals addressed the Commission's treatment of a KP&L gain on the sale of its office building in Salina. KP&L treated the gain as outside its accounts for rate-making purposes. The Commission treated the gain as appropriate for rate making and allowed the gain to flow through to the ratepayers. The court recognized the balancing of gains and losses between ratepayers and stockholders and mentioned the risk of loss of investment capital as a factor to be considered.

In *Southwestern Bell Tel. Co. v. State Corporation Commission*, 192 Kan. 39, 389 P.2d 515 (1963), which is discussed earlier in the opinion, this court recognized that the Commission should receive and consider any evidence which has a relevant bearing on reasonable value and then determine what formula, or combination of formulae, it believes should be used under the facts and circumstances of the case to arrive at a reasonable value of the property for rate-making purposes.

There are cases in other jurisdictions which hold that the present fair value of generating facilities cannot exceed the present cost of constructing a *substitute* system of modern design, capable of generating and distributing the same quantity of power at less operating expense.

See *Utilities Comm. v. Power Co.*, 285 N.C. 377, 206 S.E.2d 269 (1974). In *Utilities Comm. v. Power Co.*, 285 N.C. 398, 206 S.E.2d 283 (1974), the court stated that neither original cost nor replacement cost are a measure of fair value but only indicators thereof. The term "just and reasonable rates" imports flexibility in the exercise of a complicated regulatory function by a specialized decision-making body and this was not intended to confine the ambit of regulatory discretion to an absolute or mathematical formula but rather to confer on the regulatroy authority the power to make and apply policy concerning the appropriate balance between prices charged to utility customers and returns on capital to utility investors consonant with constitutional protections applicable to both. *Pennsylvania, etc. v. Pennsylvania Gas*, 492 Pa. 326, 337, 424 A.2d 1213 (1980), *cert. denied* 454 U.S. 824 (1981).

The Commission referred to other jurisdictions which have recognized "risk sharing" as a valid approach to the problem of excess capacity and cancelled plant situations. *Iowa Planners Net. v. Iowa State Commerce*, 373 N.W. 2d 106, 110 (Iowa 1985); *Phila. Electric Co. v. Pa. P.U.C.*, 61 Pa. Commw. 325, 433 A.2d 620 (1981); *Re Carolina Power and Light Co.*, 49 P.U.R. 4th 188 (N.C. 1982); *Re Otter Tail Power Co.*, 44 P.U.R. 4th 219 (N.D. 1981). See, *Re Nine Mile Point No. 2 Nuclear Station*, 62 P.U.R. 4th 455 (N.Y. 1984); and Colton, *Excess Capacity: Who Gets the Charge from the Power Plant?*, 34 Hastings L. J. 1133, 1146-49 (1983), where the Commission applied risk sharing to capital costs which exceeded construction costs.

The utilities raise a number of legal issues attacking the disallowance for excess economic capacity. They maintain that the imposition of a reasonable value methodology after Wolf Creek was already constructed and placed into service would deny the utilities a fair opportunity to earn a fair return on their investment. They

question the sufficiency of the evidence to support the findings of the Commission. We find these contentions to be without merit. In our judgment, the statutory provisions adopted in 1984, coupled with the prior decisions of the Kansas courts, gave to the KCC a broad authority to evaluate the Wolf Creek generating plant, including the use of the risk-sharing approach in determining excess economic capacity.

The utilities argue that the Commission's use of a reasonable value methodology was invalid because it denied recovery of expenses actually incurred which were necessary to comply with safety regulations of the NRC. In this case, the utilities were allowed to recover all of the costs of Wolf Creek except the disallowance for imprudent costs. The Commission simply denied the utilities a return on that portion of Wolf Creek which represented physical or economic excess capacity. Thus, the amount of the Wolf Creek costs that resulted from compliance with NRC safety requirements are to be recovered by the utilities. Furthermore, the utilities' argument that the orders of the KCC interfere with safety regulations of the NRC has been rejected by the United States Superme Court. In *Pacific Gas & Elec. v. Energy Resources Comm'n*, 461 U.S. 190, 75 L. Ed. 2d 752, 103 S. Ct. 1713 (1983), the United States Supreme Court stated that although Congress intended that the federal government should regulate the radiological safety aspects involved in the construction and operation of nuclear plants, the states retain their traditional responsibility in the field of regulating electrical utilities for determining questions of need, reliability, cost, and other related state concerns. The determination of the rate base by the Commission in this case does not in any way encroach on the power of the NRC to establish and regulate the safety requirements of nuclear plants.

The utilities also complain that the KCC does not have the authority to phase-in the rate increases over a period

of five years. We find this contention to be without merit. In the first place, we note that KGE and KCPL requested in their rate application that the KCC phase-in their proposed rate increases. The Commission did just that. Furthermore, K.S.A. 66-128b specifically authorizes the Commission to phase-in "the reasonable value of property determined not currently used or required to be used." The phasing-in of increased rates over a period of time has the effect of balancing the interests of the current ratepayers and the interests of future ratepayers. In addition, phasing-in the value of property as a part of the rate base is a useful tool which the KCC may use in balancing the interests of the investors and the ratepayers.

KCC's Method of Allocating the KPCL Rate Base and Cost of Services Between Kansas and Missouri

Because of the fact that KCPL provides electrical service to customers in both Kansas and Missouri, that utility has raised an issue regarding the Commission's allocation of the rate base and cost of service between those two states. KCPL contends that the method of allocation used was arbitrary, unconstitutional, unlawful, and confiscatory.

Because of the interstate nature of KCPL's business, the regulatory commissioners in both Kansas and Missouri are required to allocate KCPL's operating costs and plant investment between the residents of those states. One commonly used method of allocating a public utility's costs is termed the "coincident peak" or "C.P." method. This method allocates operating costs and plant investment to the jurisdictions actually served by a utility based upon the percentage of total system demand contributed by customers in the serviced jurisdictions during certain periods of time. KCPL took the position that, since the demand of Kansas customers is at its very highest in the four summer months when air-con-

ditioning usage is at its greatest, the 4 C.P. method should be used in making the allocation. The KCC staff disagreed. Although agreeing that KCPL's total amount of generating capacity may be determined by summer peak cost, it found that total capacity is determined by all twelve months of the year. The staff recommended that the 12 C.P. allocation be used, because it recognized KCPL's capacity requirements throughout all 12 months of the year. The Commission found that the 12 C.P. allocation factor is the most appropriate method of allocating KCPL's production costs and transmission plant value between the jurisdictions because it better recognizes KCPL's investment in base-load facilities used year round and not solely during the summer peak months. We cannot say that the Commission's adoption of the 12 C.P. method was unreasonable or in any way illegal. We note that KGE requested and the Commission adopted the 12 C.P. methodology in connection with the KGE plants. At the time the KCC made its decision, KCPL's case was still pending before the Missouri commission. In the event that consistent methodology is not adopted by Kansas and Missouri, KCPL can make an application to the KCC for relief.

The Reasonableness of the Overall Result

As we stated at the beginning of this opinion, in a rate-making case, the goal of the KCC, as a state regulatory agency, should be to establish a rate within the "zone of reasonableness" after application of a balancing test in which the interests of all concerned parties are considered. In our judgment, the KCC has accomplished that result.

The KCC acted within its statutory powers. The utilities received virtually all of the operating expenses that they requested to operate and maintain the plant and to decommission it at the end of its life. The KCC eliminated approximately 10% of the costs of construction

which it found to be inefficiently and imprudently incurred. All of the remaining 90% of the Wolf Creek construction costs are to be recovered through annual depreciation expenses over the life of the plant. It is only the return or profit on certain costs which has been restricted by the Commission. The disallowances for excess physical capacity and excess economic capacity were properly determined by the use of recognized methodology as the Commission proceeded to determine a fair valuation of the Wolf Creek property. The KCC left the door open for the possibility that portions of the construction costs found to constitute excess physical capacity and excess economic capacity might be included in the rate bases at some time in the future. We find no error in any actions taken or orders entered by the KCC.

The orders of the Kansas Corporation Commission are affirmed.

SCHROEDER, C.J., dissenting: Viewing the "end result" of the orders of the Kansas Corporation Commission (KCC) from the record presented to this court for review, it is readily apparent the orders are unlawful, unreasonable, arbitrary and capricious.

In *Power Comm'n v. Hope Gas Co.*, 320 U.S. 591, 88 L. Ed. 333, 64 S. Ct. 281 (1944), the United States Supreme Court addressed the considerations to be taken into account by the Federal Power Commission in setting "just and reasonable" rates for natural gas companies, as required by sec. 4(a) of the Natural Gas Act of 1938, 15 U.S.C. § 717 (1982). In applying the standard requiring "just and reasonable" rates, the *Hope* court emphasized the focus of inquiry is upon the end result or "total effect" of the rate order, rather than the rate-setting method employed. The court described the rate determination process as a balancing process between the various interests, including the consumer and the investor.

Rates set within the "broad zone of reasonableness" cannot be attacked as confiscatory if, in the balancing test, proper consideration is given the interests of the utilities' investors, the present ratepayers, the future ratepayers, and the public. *Permian Basin Area Rate Cases*, 390 U.S. 747, 770, 20 L. Ed. 2d 312, 88 S. Ct. 1344, *reh. denied* 392 U.S. 917 (1968).

A more detailed examination of these various interests and the law applicable to this case will be discussed later. Of prime importance to my reasoning, which brands the decision of the KCC in this case as arbitrary and confiscatory, are several established facts.

First: Counsel for the KCC *admitted*, in argument of this case before the Kansas Supreme Court, that the initial decision of the utilities to build a nuclear reactor plant at Wolf Creek for the generation of electricity was *not an imprudent decision.* The general nature of the admission concedes the generating capacity of the Wolf Creek plant as planned was reasonable.

Second: In January 1977, the Nuclear Regulatory Commission (NRC), the successor to the Atomic Energy Commission, issued a temporary work authorization permit for the construction of a nuclear facility on Wolf Creek in Coffey County for the generating capacity planned by the utilities.

Third: The KCC determined a total of $183 million, or about 10% of the costs of construction of the Wolf Creek facility attributable to Kansas, was inefficiently and imprudently incurred. On this sum the utilities were denied both a recovery of and a return on that portion of the costs of construction. Without conceding this to be a proper determination, for purposes of my dissent it will be assumed the determination was within the evidence presented and within the discretionary power of the KCC. (The KCC made this determination using perfect hindsight without taking into consideration the information

and data available to the utilities when the decisions were made.)

The court in its opinion attributes vast expertise to the KCC to regulate utilities in the public interest. The opinion also states that to guard against arbitrary action the KCC is required to state expressly its findings of fact and conclusions of law. This concession by the court, however, does not warrant the court's abrogating its function of review on appeal as mandated by the legislature. *Kansas Bd. of Regents v. Pittsburg State Univ. Chap. of K-NEA*, 233 Kan. 801, 830, 667 P.2d 306 (1983) (Schroeder, C.J., dissenting).

The historical background and other factual recitations related in the court's opinion will not be restated, and further discussion will proceed on the assumption the reader is familiar with this information. In my opinion, the KCC has simply refused to recognize reality concerning the economic conditions of national scope encountered by the utilities after entering into the contract for construction of the Wolf Creek facility.

Figuratively speaking, the record discloses the KCC, from the time of its initial investigation into the cost overruns at the Wolf Creek plant in 1979, began loading its guns with ammunition for bear to ambush the utilities with the rate orders it eventually entered, after the utilities applied to the KCC to authorize a rate increase.

Legislation was enacted in 1984 (K.S.A. 66-128 through 66-128k) and amended in 1985 (K.S.A. 66-101 *et seq.*). This legislation was referred to by Robert Vancrum as *The Wolf Creek Excess Cost—Excess Capacity Bill*, 33 Kan. L. Rev. 475 (1985). The legislation is broad in scope and was enacted in anticipation of rate increases from 40% to 110% when the Wolf Creek plant become operational. This legislation *as construed and as applied by the KCC* is unconstitutional. It was enacted seven years after construction of the Wolf Creek facility was

begun in 1977. True, it was enacted before the utilities made application for a rate increase, but it was applied to the utilities as a penal statute by the KCC to force a gigantic forfeiture of capital investment. As this legislation was applied, it is arguably an ex post facto law. While the United States constitutional provision (art. 1, sec. 10) prohibiting the enactment of ex post facto laws by the states is applied primarily to criminal enactments, it has also been extended to civil statutes that are penal in nature. The courts look to the purpose of the statute to see if it is punitive or penal. See *Flemming v. Nestor*, 363 U.S. 603, 613-18, 4 L. Ed. 2d 1435, 80 S. Ct. 1367 (1960); *American Power and L. Co. v. Securities and Ex. Com'n*, 141 F.2d 606 (1st Cir. 1944), *aff'd* 329 U.S. 90, 91 L. Ed. 103, 67 S. Ct. 133 (1946); *Dock Watch Hollow Quarry Pit v. Tp. of Warren*, 142 N.J. Super. 103, 361 A.2d 12 (1976), *aff'd* 74 N.J. 312, 377 A.2d 1201 (1977); *Springer v. Whalen*, 68 App. Div. 2d 1011, 415 N.Y.S.2d 106 (1979).

Furthermore, as construed and as applied by the KCC the legislative enactment is confiscatory—violative of the due process clause of the U.S. Constitution. It is the taking of private property for public use without just compensation. *Power Comm'n v. Pipeline Co.*, 315 U.S. 575, 86 L. Ed. 1037, 62 S. Ct. 736 (1942); *Bluefield Co. v. Pub. Serv. Comm.*, 262 U.S 679, 67 L. Ed. 1176, 43 S. Ct. 675 (1923); *Smyth v. Ames*, 169 U.S. 466, 42 L. Ed. 819, 18 S. Ct. 418 (1898); *Williams v. City of Wichita*, 190 Kan.. 317, 341, 374 P.2d 578 (1962) (Schroeder, J., dissenting).

The legislative enactments of 1984 and 1985 pertaining to Wolf Creek need not be held unconstitutional, if there is any way to uphold their constitutional validity. This can be done by construing the legislative enactments to require compliance with *Hope* and other state and federal decisions which mandate that rates set for public utilities fall within the "broad zone of reasonableness"

by a balancing process between the various interests—the interest of the utility investors, the present ratepayers, the future ratepayers, and the public.

Taking into consideration the equation which requires the balancing of the various interests and the three factual considerations heretofore enumerated, what did the KCC do?

It heard the testimony of 479 consumers of electricity; 475 of them were present ratepayers. Their common voice was one of opposition to increased electric utility rates. It is apparent the end result of the KCC order reflects almost a complete disregard of the other interest groups in the equation.

With focus on the major issue in this case, determination of the *rate base* attributed to the Kansas portion of the Wolf Creek facility, how did the KCC accomplish its result? First, the KCC made a deduction of 10% imprudent construction costs from the rate base, for which no income on or recovery of capital is permitted. This forecloses *further penalty for imprudent* management decisions.

Second: the KCC then made a major deduction from the rate base of those construction costs attributable to excess physical capacity. This is a deduction based on all construction costs of the Wolf Creek plant attributable to Kansas over and above the used and useful portion needed for the generation of electricity to supply present and reserve needs which the KCC projected to the 1990 anticipated need. However, to determine excess generating capacity of the Wolf Creek facility the KCC included the electric generating capacity of two Hawthorn fossil fuel plants that had been decommissioned and put in mothballs. The effect of this was to increase the excess capacity of the Wolf Creek facility, which resulted in a larger deduction from the rate base for excess physical capacity. This was done in the face of notification to the utilities in the early 1960s that fossil fuels were being

depleted and would eventually become unavailable for the generation of electricity.

Many public utility commissions in other states have made no deduction for excess capacity from the rate base. *Re Iowa-Illinois Gas & E. Co.*, 56 P.U.R. 4th 361 (Ill. 1983); *Re Public Service Co. of Indiana*, 51 P.U.R. 4th 6 (Ind. 1983); *Re Cleveland Electric Illum. Co.*, 46 P.U.R. 4th 63 (Ohio 1982); *Re Pacific Power & Light Co.*, 63 P.U.R. 4th 642 (Or. 1984).

Third: Not content with the end result after the enormous deduction for excess physical capacity from the rate base, the KCC then made a further enormous deduction from the portion of the Wolf Creek facility attributable to Kansas for what it termed "excess economic capacity." This portion of the Wolf Creek plant costs excluded from the rate base (representing investment in "*excess economic capacity*") is not warranted because it represents a further deduction from that portion of the plant which the KCC specifically *found to be used and useful.* This additional exclusion from the rate base is simply a double-whammy for "excess capacity."

No cases have been cited to this court, and our research has disclosed none, where any court has upheld an exclusion of excess economic capacity from the rate base similar to what the KCC has done here. State commissions where an attempt was made rejected the deduction of excess economic capacity from the rate base. *Re Washington Water Power Co.*, 60 P.U.R. 4th 503 (Idaho 1984); *Re Union Electric Co.*, 67 P.U.R. 4th 218 (Ill. 1985); *Re Union Electric Co.*, 72 P.U.R. 4th 444 (Iowa 1986).

The method used by the KCC to determine "excess economic capacity" was the unprecedented revaluation of the Wolf Creek facility to generate electricity as a hypothetical coal plant. It compared the cost of generating one megawatt of electricity in a newly constructed

hypothetical coal plant to the cost of generating one megawatt of electricity in the Wolf Creek facility based on the construction costs of the Wolf Creek facility. It is conceded electricity generated from a nuclear energy plant requires greater capital investment in the initial construction, but it is much cheaper to operate once the plant is constructed. A coal plant costs less to construct, but it is more expensive to operate.

The KCC refused to permit the utilities in this case to present their evidence that the Wolf Creek facility was the most efficiently built nuclear energy facility in the United States as of the time it was constructed.

The fallacy in the determination made by the KCC to deduct "excess economic capacity" from the rate base is disclosed by an analysis of the reasons for the tremendous increase in construction costs after initial construction began. Approximately 50% of the increased costs encountered by the utilities in constructing the Wolf Creek facility were attributable to changing regulatory safety requirements imposed by the federal Nuclear Regulatory Commission following the Three Mile Island nuclear accident in Pennsylvania. These costs were not anticipated when construction of the Wolf Creek facility began. There was no way the utilities could avoid these costs imposed by the Nuclear Regulatory Commission. The construction and operation of nuclear power plants has been preempted by federal law in the form of the Atomic Energy Act. In *Northern States Power Company v. State of Minnesota*, 447 F.2d 1143, 1154 (8th Cir. 1971), the court said:

> "[W]e hold that the federal government has exclusive authority under the doctrine of pre-emption to regulate the construction and operation of nuclear power plants, which necessarily *includes* regulation of the levels of radioactive effluents discharged from the plant." (Emphasis added.)

The United States Supreme Court in *Pacific Gas & Elec. v. Energy Resources Comm'n*, 461 U.S. 190, 75 L. Ed. 752, 103 S. Ct. 1713 (1983), held broadly that "the Federal Government has occupied the entire field of nuclear safety concerns," and that "the NRC [has] exclusive authority over plant construction and operation." 461 U.S. at 212. Regulation in the field of the traditional state area of utility rate regulation may not stand when, as here, it transgresses upon areas reserved to the federal government. While the KCC is not required to value the Wolf Creek facility at the value requested by the utilities, the KCC must not preclude a return on costs required to comply with federally mandated nuclear safety regulations.

Indirectly, the KCC by deducting from the rate base its determination of "excess economic capacity" has refused to honor the costs attributable to federal preemption.

Obviously, a conflict exists between the KCC's orders and the prior decision of the NRC that the Wolf Creek facility would be needed. Fuel diversity was needed when the Wolf Creek facility was planned.

If the orders of the KCC are upheld in this case, potential owners of future nuclear power plants will choose not to build such plants because they will not be permitted to recover the costs mandated by the federal government's nuclear safety regulations. This prospect clearly stands as an obstacle to the important federal goals found in the Atomic Energy Act of encouraging the development of nuclear power and the goal of encouraging the use of fuels other than oil and natural gas found in the Fuel Use Act.

Directing attention to the admission of the KCC that the initial decision of the utilities to construct the Wolf Creek facility was a prudent decision, it is inconceivable the KCC would not have issued a siting permit for the plant's construction had such permit been required.

Where a siting permit has been issued by the KCC, a finding of lack of prudence in capacity planning for a facility which in whole or in part represents excess capacity *shall not be made.* Reasonable action by the KCC should have taken this into consideration. The KCC smugly states in its brief, however, that no siting permit was issued. Furthermore, authorization of the KCC under K.S.A. 66-128e to exclude from value of utility property for rate-making purposes that portion of the costs attributable to investment in excess capacity, which were incurred due to *lack of prudence in facility planning,* has no application in this case. The entire cost of the Wolf Creek facility attributable to Kansas was found to be prudent, except for the 10% found to be imprudent. Findings by the KCC in determining the base in this case are clearly inconsistent.

The perfect hindsight approach taken by the KCC to support its orders was taken from the testimony of its expert witness, Dr. Richard A. Rosen.

On cross-examination Dr. Rosen said his research firm was very new to the field of nuclear economics; that it only started to consider nuclear economics in 1980. He testified that everywhere they turned at that time they found a tremendous lack of research. He testified the planning and decision-making process of the utilities concerning the Wolf Creek facility was seriously inadequate and at the end of 1981 the reasonable and prudent course of action for the utilities should have been to abandon the project; that the losses incurred after 1981 should be borne 100% by the shareholders; and that the losses that occurred prior to 1981 should be shared 50-50 between the shareholders and the ratepayers. Actually, abandonment of construction prior to completion of the Wolf Creek project is academic because the project was never abandoned.

Dr. Rosen's statements are amusing because, according to case law, had the project been abandoned the total

expenditures for the first five years of construction would have been "sunk costs." That is, the investors would not be permitted to recover either income on or return of their capital investment under the law in some states. *Citizens Action v. Northern Indiana Public*, 485 N.E.2d 610 (Ind. 1985); *Dayton Power Light Co. v. Pub. Util. Comm.*, 4 Ohio St. 3d 91, 447 N.E.2d 733 (1983).

The specific *after the fact* test proposed by Dr. Rosen violates the well-established rules for determining the prudence of management decision-making. His proposal violates basic tenets of fairness by radically altering the "rules of the game" after the investors' funds have been committed.

Cases relied upon by the KCC to support its deduction of "excess economic capacity" from the rate base and burden the investors with these excess economic costs do not support its action. The KCC contends the investors assumed these risks under its authority to allocate such risk to them. The "risk-sharing" cases cited by the KCC fall into one of four categories, none of which concerns excess economic capacity—abandoned or cancelled plant, plant that is not used and useful, legislative caps on nuclear investment, and plant failure.

The KCC argues the utilities are not denied recovery of capital expenditure on those costs deducted from the rate base for "excess physical capacity" and "excess economic capacity" because the utilities will be permitted to recover these costs by an annual depreciation allowance over the life of the Wolf Creek facility. This is misleading. In the KCC order the following is stated:

> "We find that some carrying costs associated with the debt and preferred stock costs of capital should be accrued. Such carrying costs, however, should only be those associated with the portion of Wolf Creek excluded on a physical excess capacity basis

valued at the same economic value as the portion included in rate base."

A regulatory body may not arbitrarily use the asserted, lower costs of a fictional facility instead of the historical cost of an actual facility in assigning a value to the facility in question for rate base purposes, particularly where that is done selectively to achieve the lowest possible rate base. The KCC cites no cases whatsoever where the concept of risk sharing, or any other concept, was used to justify hypothetical coal plant revaluation of a nuclear generating facility.

The Iowa State Commerce Commission, upon Union Electric Company's application for a rate increase based on the Callaway nuclear plant in Missouri, was faced with the argument that there were cheaper cost alternatives to a nuclear plant, such as a coal-fired plant, and only the cost of the lower-cost alternative should be allowed in the rate base. *Re Union Electric Co.*, 72 P.U.R. 4th 444, 450 (Iowa 1986). There the Commission responded and held:

> "The evidence showed that when the Callaway project was planned in the 1970's, a nuclear plant was a reasonable alternative. Union Electric's choice to 'go nuclear' was prudent when made. Now that a nuclear plant has been completed, Union Electrict should be allowed to collect rates consistent with the operation of a *nuclear* plant, rather than some other type of plant. Attributing the cost of an alternate type of generating plant to the Callaway plant is *illogical*." (Emphasis added.)

See also *In the Matter of the Application of Southern California Edison Company before the Public Utilities Commission of the State of California*, Application 85-05-144 (December 18, 1985), rejecting the question of retroactive "value based" rate making relating to the Palo Verde Nuclear Generating Station.

Without any precedent for its revaluation, the KCC asserts that it has properly allocated to the investors the "risk" that Wolf Creek construction costs would exceed that of a coal plant. But the investors in the Wolf Creek facility did not "assume the risk" of any unprecedented, arbitrary denial of a return on precedent construction costs of used and usable Wolf Creek capacity, merely because they exceeded the construction costs of a coal plant of the same size.

Imputing imprudent construction costs of 10% to KEPCo is, in my opinion, erroneous. KEPCo buys electrical energy at wholesale, having no generating facilities of its own. The lines over which electricity is supplied to the various cooperatives in KEPCo are owned by KG&E. KG&E would not supply electricity to KEPCo unless KEPCo brought into the Wolf Creek facility. Therefore, KEPCo had no choice if it was to continue supplying electricity to its cooperatives. Furthermore, in KEPCo the consumers of electricity are the owners of the Cooperative. Therefore, shifting the risk to the investors is simply shifting the burden to the consumers.

It is respectfully submitted the orders of the KCC should be reversed and the case remanded to the KCC for the establishment of just and reasonable rates.

APPENDIX B

Denial of Rehearing by Kansas Supreme Court

IN THE SUPREME COURT
OF THE STATE OF KANSAS

No. 85-58914-A S
85-58917-A S
85-58918-A S

KANSAS GAS AND ELECTRIC CO.,
Applicant

v.

STATE CORPORATION COMMISSION OF THE
STATE OF KANSAS,
Respondent

You are hereby notified of the following action taken in the above entitled case:

Motion for rehearing.

Motion for rehearing denied.

Yours very truly,

LEWIS C. CARTER
Clerk
Supreme Court

Date July 17, 1986

APPENDIX C

Order of the Kansas Corporation Commission (KG&E)

THE STATE CORPORATION COMMISSION OF THE STATE OF KANSAS

Before Commissioners: Michael Lennen, Chairman
Margalee Wright
Keith R. Henley

Docket No. 120,924-U

IN THE MATTER OF A GENERAL INVESTIGATION BY THE COMMISSION OF THE PROJECTED COSTS AND RELATED MATTERS OF THE WOLF CREEK NUCLEAR GENERATION FACILITY AT BURLINGTON, KANSAS

Docket No. 142,098-U
84-KG&E-197-R

IN THE MATTER OF THE APPLICATION OF KANSAS GAS AND ELECTRIC COMPANY REQUESTING PROPOSED CHANGES IN ITS CHARGES FOR ELECTRIC SERVICES

ORDER

NOW, the above-captioned matters come before the State Corporation Commission of the State of Kansas for consideration and determination of the application of Kansas Gas and Electric Company (KG&E or applicant) for approval of changes in its charges for electric service.

Having considered the evidence and testimony, the files and records and being fully advised in the premises, the Commission's findings and conclusions are set forth hereinbelow.

I. *APPEARANCES*

1. The following parties entered an appearance in the above captioned matters.

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Ms. LuAnn Dixon
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2. Four hundred seventy-seven (477) members of the public appeared on their own behalf and on the behalf of others at nineteen (19) public hearings conducted between June 4 and June 20, 1985. A complete list of those who testified at the public hearings is contained in an attached Appendix.

II. *INTRODUCTION*

1. This Order concerns two interrelated dockets, 120,924-U and 142,098-U, both of which relate to commercial operation of the Wolf Creek Generating Station (WCGS). To determine whether the WCGS was fully operational and dedicated to commercial service the Commission established in-service criteria. The owners of the WCGS, through their operating agent KG&E, affirmed by affidavit the in-service criteria had been satisfied and declared the WCGS to be in commercial service as of 1:16 a.m., September 3, 1985. Staff confirmed by affidavit filed September 10, 1985, that the aforementioned in-service criteria had been satisfied and that the WCGS should be considered in-service at the date and time attested to by the owner utilities.

2. Docket No. 120,924-U was created in 1979 for the purpose of initiating a "general investigation of the projected costs and related matters of the Wolf Creek Nuclear Generating Facility at Burlington, Kansas." One of the primary functions of the general investigation docket was to allow staff to begin collecting data relevant to the anticipated commercial operation of WCGS and the related rate applications so that staff's investigation would not have to be completed within the 240 day suspension period prescribed by K.S.A. 66-177 for the investigation and hearing of rate applications and the issuance of final orders.

3. Docket No. 142,098-U was created on November 8, 1984, upon the filing by KG&E of an application requesting proposed changes in its charges for electric service based upon, *inter alia*, the commercial operation of the WCGS. KG&E amended its application on January 31, 1985. KG&E requested approval of rates designed to increase total company revenue by 144.9 million dollars in 1985. The 1985 rate proposal represents the first of five annual rate increases proposed by KG&E. The annual

revenue increases proposed for the following four years would be the subject of future rate proceedings.

4. KCPL and KEPCo also applied for approval to increase their rates for electric service due to the commercial operation of Wolf Creek. Docket No. 142,099-U was created on November 8, 1984, upon the filing by KCPL of its rate application requesting proposed changes in its charges for electric service based upon, *inter alia*, the commercial operation of Wolf Creek. KCPL amended its application on January 31, 1985. Both the original and the amended application request Commission approval of a one time increase in revenues of 90.5 million dollars, or, in the alternative, a 110.6 million dollar rate increase to be phased in over a four year period.

5. Docket No. 142,100-U was created on November 14, 1984, upon the filing by KEPCo of its WCGS rate application. KEPCo filed an amended application on February 1, 1985. In its application, KEPCo requested a $26,984,410 increase in annual revenue, representing approximately a 40 percent increase in revenue presently collected from KEPCo's member distribution cooperatives. The Commission's findings with regard to Docket Nos. 142,099-U and 142,100-U are set out in separate orders.

6. As noted, the above-referenced applications for rate relief and the general investigation are based primarily upon the investment in, and the commercial operation of the WCGS. Thus, there are issues common to all of the above referenced dockets. In an Order dated March 29, 1985, the Commission found six Wolf Creek related issues were to be designated common issues to be heard on a common record in accordance with K.A.R. 82-1-224(a). The six issues were identified as follows:

(1) the reasonableness of the cost, acquisition and construction of the Wolf Creek generating station including, but not limited to, a comparison

of the actual cost with the definitive or original cost estimate;

(2) the reasonableness of the cost of operation of Wolf Creek including overhead, maintenance, personnel, appropriate depreciation rate and increased insurance costs;

(3) determination of the appropriate methods of waste disposal and decommissioning and the reasonableness of the respective costs;

(4) all issues relating to the use of nuclear fuel and the status of the licensing of Wolf Creek;

(5) whether the collective management decisions to construct and the collective management decisions to continue construction on a year to year basis were economically prudent; and

(6) whether any portions of cost of acquisition, construction or operation of Wolf Creek were incurred due to lack of efficiency or prudence, including, but not limited to, consideration of those factors to be considered pursuant to K.S.A. 1984 supp. 66-128g(a).

7. In addition, the issues of excess capacity or the need for power, as they relate to one or more of the six issues set forth above, are common issues properly presented either on the common record or on the record of the company specific docket. Furthermore, any other issues not specifically identified but which relate to, or bear upon, the six issues enumerated above may be presented as part of the common record.

8. Consistent with the identification of common issues, in an order dated August 13, 1985, the Commission concluded Docket Nos. 120,924-U, 142,098-U, 142,099-U and 142,100-U would be consolidated pursuant to K.A.R. 81-2-224(a) for the purpose of hearing evidence concerning the common issues on a common record.

9. The scope of this order is limited to the Commission's findings with regard to the common issues addressed in Docket No. 120,924-U and 142,098-U jointly and the KG&E specific issues addressed in Docket No. 142,098-U. Issues identified and addressed by the Commission in its deliberations concerning the common issues of Docket No. 120,924-U and 142,098-U include:

(1) the efficiency and prudence of the Wolf Creek acquisition/construction process;

(2) excess generating capacity;

(3) the reasonable value of Wolf Creek capacity;

(4) the decommissioning of a nuclear power plant;

(5) Wolf Creek operating and maintenance expense;

(6) Wolf Creek depreciation rate;

(7) performance standards;

(8) the need for appropriate funding for payment of dividends during the construction of Wolf Creek;

(9) the appropriate ratemaking treatment of fines and penalties relating to Wolf Creek;

(10) an examination of a leasing arrangement for nuclear fuel; and

(11) the need for periodic reporting concerning load growth equivalent availability, capacity factor, operating and maintenance costs, decommissioning estimates, forced and scheduled outages and insurance coverage.

10. With regard to the issues specifically related to KG&E's rate application, through direct testimony and cross-examination, staff and applicant took opposing positions in the following areas: the nature of the rate relief; the inclusion of the Jeffrey Energy Center Unit No. 4

Turbine Generator in the rate base as a part of the spare part inventory for Jeffrey Units 1 through 3; the flow-through of the benefit of the interest expense deduction attributable to excluded Wolf Creek rate base, the inclusion of the ad valorem tax expense associated with any excluded Wolf Creek plant in the KG&E cost of service; the proper level of expense related to the operation and maintenance of LaCygne Generating Stations Units 1 and 2; phase-in of the rate increase; the value of SWPA power in the allocation process for generating municipals and KEPCo; the value of Generating Municipal owned generating plant; and the revenue requirements for KG&E.

11. The hearing of common issues in Docket No. 120,924-U and 142,098-U commenced May 13, 1985, at the Kansas Statehouse, Old Supreme Court Chambers, Third Floor, Topeka, Kansas. KG&E company-specific rate issues in Docket No. 142,098-U were called for hearing on July 15, 1985, and concluded July 22, 1985.

12. A complete list of witnesses called to testify on behalf of the applicants, staff and intervenors in Docket Nos. 120,924-U and 142,098-U is attached hereto as an Appendix. The Commission also heard testimony from ratepayers at public hearings conducted at the following times and locations:

June 4	Wichita 9 a.m. 1-7 p.m.	Century II Complex 225 W. Douglas
June 5	Wichita 9 a.m. 1-7 p.m.	Century II Complex
June 6	Lindsborg 1 p.m.	Bethany College
June 6	Newton 7:30 p.m.	Bethel College North Newton

June 7	Meade 1 p.m.	Veterans' Bldg. 115 E. Belle
June 7	El Dorado 7 p.m.	Butler Cty. Comm. College 901 S. Haverhill Rd.
June 10	Topeka 7 p.m.	Capitol Bldg. 3rd Floor-Room 313 S
June 11	Paola 7 p.m.	Paola High School 405 N. Hospital Drive
June 12	Pittsburg 7 p.m.	Pittsburg Memorial Auditorium 503 North Pine
June 13	Overland Park 9 a.m. 1-7 p.m.	Johnson Cty. Comm. College 12345 College Blvd.
June 18	Iola 7 p.m.	Bowlus Fine Arts Center 205 East Madison
June 19	Independence 7 p.m.	Memorial Hall Civic Center (Basement) Locust & Penn Ave.
June 20	Beloit 7 p.m.	Municipal Bldg. 119 North Hersey

The record was closed upon the filing of briefs by the parties August 30, 1985, and receipt on September 16, 1985, of staff's affidavit regarding commercial operation.

III. *JURISDICTION AND NOTICE*

1. The Kansas Corporation Commission has the power and authority to require all public utilities doing business in Kansas to provide reasonably efficient and sufficient service and to establish and maintain just and reasonable rates. K.S.A. 66-107. Unless the State Corporation Commission otherwise orders, no common carrier or public utility over which the Commission has control shall make effective any changed rate, or rates of such public utilities or common carrier, except by filing the

same with the Commission at least 30 days prior to the proposed effective date thereof. K.S.A. 66-117. The State Corporation Commission has the authority to review and evaluate the efficiency and prudence of any action, including acquisition of excess capacity, or operating practices of any public utility or common carrier for the purpose of establishing fair and reasonable rates. K.S.A. 6-128a. An order of the Commission establishing just and reasonable rates must be based upon substantial competent evidence. *Jones v. Kansas Gas and Electric Company*, 222 Kan. 390 (1977).

2. KG&E is a corporation organized and existing under the laws of the State of Kansas with its principal place of business at 201 North Market Street, Wichita, Kansas. KG&E is an electric public utility within the meaning of K.S.A. 66-101 *et seq.* and it holds appropriate certificates of convenience and necessity to engage in the business of the sale of electric service at retail for domestic, commercial, and industrial uses in the State of Kansas.

3. KCPL is a corporation organized and existing under the laws of the State of Missouri, with its principal place of business located at 1330 Baltimore Avenue, Kansas City, Missouri. KCPL is an electric public utility within the meaning of K.S.A. 66-101 *et seq.* and it holds appropriate certificates of convenience and necessity to engage in the business of the sale of electric service at retail for domestic, commercial and industrial uses in the State of Kansas.

4. KEPCo is a corporation organized and existing under the State of Kansas with its principal place of business located at 5990 Southwest 28th Street, Topeka, Kansas. KEPCo is an electric public utility within the meaning of K.S.A. 66-101 *et seq.* and it holds appropriate certificates of convenience and necessity to engage in the business of the sale of electric services at wholesale

to tweny-five rural electric cooperative members in the State of Kansas.

5. The following parties were granted leave to intervene in Docket Nos. 120,924 and/or 142,098-U: Kansas Natural Resource Council; Boeing Military Aircraft Company; Cities of Wichita, Clearwater, Derby, Goddard, Garden Plain, Overland Park, Olathe, Lenexa, Shawnee, Merriam, Countryside, Mission, Roeland Park, Whitewater, Potwin, Kechi and Cheney, Kansas; Alliance for Livable Electric Rates (ALERT); Electric Shock Coalition; United States Air Force; Robert T. Stephan, Attorney General of the State of Kansas; Conoco, Inc.: Kansas Independent Oil and Gas Association (KIOGA); Kansans for Sensible Energy; Vulcan Materials Co., Chemical Division; Johnson County Board of Commissioners; Johnson County Community College; Hospital and Industrial Group; KPL/Gas Service; Blue Valley Unified School District No. 229; Johnson County Commercial & Industrial Energy Consumers; Olathe Unified School District; Shawnee Mission School District No. 512; Vulcan Materials; Electro Dynamics, Inc.; NCK Electric Cooperative; Mary Margaret Rogers; and the Wichita Area Chamber of Commerce.

6. KG&E verified that it published notice of hearing in Docket Nos. 120,924-U and 142,098-U in 43 newspapers of general circulation in the KG&E service area between the dates of March 27 and April 4, 1985. In addition, notice was posted in a conspicuous public place in KG&E's business offices in Kansas. Notice was also served by direct mail to each party of record in Docket Nos. 120,924-U and 142,098-U; by direct mail to each intervenor in KG&E's last rate proceeding before this Commission, Docket No. 136,380-U; and commencing March 12, 1985, and continuing through April 10, 1985, by mail to all of KG&E's Kansas customers as an insert in the regular monthly bills sent to those customers.

7. Notice of the pendency of the above-referenced applications, the general investigation and the hearings conducted with regard thereto having been given, the Commission finds notice reasonable and proper. Further, the Commission finds that it has jurisdiction to hear and decide the KG&E rate application and the issues related thereto.

IV. *EFFICIENCY AND PRUDENCE OF THE WOLF CREEK ACQUISITION/CONSTRUCTION PROCESS*

A. *INTRODUCTION*

1. In valuing utility property for ratemaking purposes, if the Commission determines that all or a portion of the costs of acquisition, construction, or operation of a generating facility were incurred due to a lack of efficiency or prudence or were incurred in the acquisition or construction of excess capacity, then the Commission may exclude all or a portion of such costs from eligibility for recovery through rates in accordance with K.S.A. 1984 Supp. 66-128c which provides as follows:

> The state corporation commission, in determining the reasonable value of property under K.S.A. 66-128, and amendments thereto, shall have the power to evaluate the efficiency or prudence of acquisition, construction or operating practices of that utility. In the event the state corporation commission determines that a portion of the costs of acquistion, construction or operation were incurred due in whole or in part to a lack of efficiency or prudence, or were incurred in the acquisition or construction of excess capacity, it shall have the power and authority to exclude all or a portion of those costs from the revenue requested by the utility.
>
> For the purpose of this act, "excess capacity" means any capacity in excess of the amount used and required to be used to provide adequate and reliable

service to the public within the state of Kansas as determined by the commission. The commission may in its discretion prohibit or reduce the return on costs which were incurred in constructing, maintaining or operating excess capacity.

2. In the event that the Commission finds a public utility to have imprudently incurred costs relating to the acquisition, construction, or operation of utility plant or if the Commission finds excess capacity to have resulted from imprudence in facility planning, the Commission may not allow recovery of carrying or financing charges on costs so incurred after the date of its finding. K.S.A. 1984 Supp. 66-128e provides, in pertinent part, as follows:

> In the event the commission finds that a portion of the costs were attributable either to investment in excess capacity which were incurred due to lack of prudence in facility planning or were incurred due to lack of prudence in plant acquisition, construction or operation, the commission shall exclude that portion of the carrying or finance charges incurred after the date of its finding, and no part of the carrying or finance costs excluded shall ever be or become part of the reasonable value of public utility property so used and required to be used. For the purposes of this section only, a finding of lack of prudence in capacity planning for a facility which in whole or in part represents excess capacity shall not be made by the commission when a siting permit authorizing the construction of the facility has been issued under K.S.A. 66-1,162 and amendments thereto prior to the passage of this act. The commission also shall not authorize the recovery as operating expense or in any other manner of the carrying or finance costs so excluded.
>
> Nothing in this act shall limit the commission's authority to adjust revenue requirements of any

public utility if the commission determines the revenue requirement requested results in whole or in part from inefficiency or a lack of prudence.

3. The Commission must consider the prudence "factors" listed in K.S.A. 1984 Supp. 66-128g(a) in assessing whether construction costs were prudently incurred and in determining whether such costs should be recovered through rates.

> The factors which shall be considered by the commission in making the determination of "prudence" or lack thereof in determining the reasonable value of electric generating property, as contemplated by this act shall include without limitation the following:
>
> (1) A comparison of the existing rates of the utility with rates that would result if the entire cost of the facility were included in the rate base for that facility;
>
> (2) a comparison of the rates of any other utility in the state which has no ownership interest in the facility under consideration with the rates that would result if the entire cost of the facility were included in the rate base;
>
> (3) a comparison of the final cost of the facility under consideration to the final cost of other facilities constructed within a reasonable time before or after construction of the facility under consideration;
>
> (4) a comparison of the original cost estimates made by the owners of the facility under consideration with the final cost of such facility;
>
> (5) the ability of the owners of the facility under consideration to sell on the competitive wholesale or other market electrical power generated by such facility if the rates for such power were determined by inclusion of the entire cost of the facility in the rate base;

(6) a comparison of any overruns in the construction cost of the facility under consideration with any cost overruns of any other electric generating facility constructed within a reasonable time before or after construction of the facility under consideration;

(7) whether the utility having an ownership interest in the facility being considered has provided a method to ensure that the cost of any decommissioning, any waste disposal or any cost of clean-up of any incident in construction or operation of such facility is to be paid by the utility;

(8) inappropriate or poor management decisions in construction or operation of the facility being considered;

(9) whether inclusion of all or any part of the cost of construction of the facility under consideration, and the resulting rates of the utility therefrom, would have an adverse economic impact upon the people of Kansas;

(10) whether the utility acted in the general public interest in management decisions in the acquisition, construction or operation of the facility;

(11) whether the utility accepted risks in the construction of the facility which were inappropriate to the general public interest of Kansas;

(12) any other fact, factor or relationship which may indicate prudence or lack thereof as that term is commonly used.

4. In light of these statutes and the general empowering statutes in Chapter 66, we have reviewed the owners' Management Performance Evaluation, Reconciliation Management Summary, and WCGS cost reconciliation and schedule testimony. In addition, we have studied the Touche Ross and Project Management Associates (PMA)

reports, and evaluated the owners' criticisms of these reports. Our assessment of the WCGS costs and construction management follows.

B. *PLANNING, ORGANIZATION AND CONTROL OF THE PROJECT AND ITS COST*

Initial Period (1973-1977)

1. The owners and staff each presented evidence and testimony to evaluate the owners' management performance during the initial phases of the Wolf Creek project. The witness for the owners, Mr. Charles L. Huston, asserted in his testimony and Exhibit G-KGE-1, that the owners' decision to join the nuclear power plant standardization group, or SNUPPS, was the "most significant event of the entire project." Because of this association, asserts Mr. Huston, the owners were able to avail themselves of the knowledge of other utilities with experience in constructing nuclear power plants and to accrue savings in engineering, licensing and procurement, as well as other areas. (Exhibit G-KGE-1, Schedule 1, p. 10). Staff witness Thomas J. Flaherty came to the same conclusion in his testimony. He stated:

> The advantages available to the Owners from participation far outweigh the potential disadvantages whether considered on an economic or non-economic basis. The ability to spread the cost of design among a number of utilities provides immediate economic benefits that also accrue to the ratepayers. Moreover, the ability to rely on the technical expertise of other experienced and participating utilities serves to increase the knowledge base of the Owners and provides for increasing familiarity over time based on the previous situations similarly experienced by these utilities. This tie-in to a broader network was particularly important given the lack of design, construction or construction management experience of the Owners. (TR. Vol. XVII, p. 4790).

Mr. Flaherty further acknowledged the positive effects of the decision to join SNUPPS when he discussed the savings in cost and schedule that resulted from the reduction of design hours and licensing effort by spreading the cost over a number of plants. (TR. Vol. XII, p. 4905-4906).

2. Witnesses for the staff and owners agree that the owners' selection of major contractors was appropriate. Mr. Huston discussed the selection of the major architect/engineer and the engineering management of the project in Chapter III of the "Management Performance Evaluation." (Exhibit G-KGE-1). He observed that:

> The SNUPPS utilities selected Bechtel Power Corporation based upon its having the greatest amount of nuclear project engineering experience of any firm in the industry and the strength of its proposed project team. Executive management committed by Bechtel to the SNUPPS project was strong. (Exhibit G-KGE-1, p. 50).

Mr. Flaherty testified that while the evaluation process for the selection of the lead architect/engineer was limited, the "selection of Bechtel resulted in obtaining the largest and most experienced architect/engineer in the nuclear power industry." (TR. Vol. XVII, p. 4792). Mr. Huston described the selection process for choosing the major site constructor, Daniel International Corporation (DIC), in Chapter VI of Exhibit G-KGE-1. Mr. Flaherty evaluated that process in his report. He concluded that:

> The evaluation and selection process used by the Wolf Creek owners was comprehensive in scope and gave appropriate consideration to economic, experience and capability factors. The evaluation and selection process employed included an assessment of the strengths and weaknesses of each organization.
>
> * * * * *
>
> The selection of DIC as the constructor for the Wolf Creek project was reasonable and prudent based on

> the information available to the Wolf Creek Owners. The selection process was comprehensive in scope . . . and involved the scrutiny of senior management of the Owner utilities. (Exhibit G-Staff-63, p. VI-27 and 28).

Staff witness Flaherty's findings relative to the selection of the contractor for the nuclear steam supply system and the turbine generator supplier were that the selection processes were comprehensive and thorough. (Exhibit G-Staff-63, p. VI-29 and 30). He summarized his findings regarding the owners' efforts in contractor selection in his testimony:

> In each case, multiple bidders were requested to participate in the bidding process and were thoroughly evaluated on both objective and subjective bases. Home office or other site visits were made to further evaluate submitted material. Although the process for selection of Bechtel as the lead A/E was significantly less comprehensive, the overall process followed for selection of major vendors and contractors was appropriate and was conducted with thorough consideration of a wide variety of factors. (TR. Vol. XVII, p. 4792).

3. During the early stages of the project, the company adopted an overall management philosophy described as construction "monitoring" by both staff and owner witnesses. Staff witness Flaherty asserted that the initial philosophy could be characterized as "that of contractor monitoring and rendering approval or denial to contractor recommendations." (TR. Vol. XVII, p. 4791). Mr. Huston discussed the owners' early construction management philosophy in his exhibit:

> The initial concept [of construction management] was to have one contractor serve as the Construction Manager of all site activities with *limited* Owner involvement . . . (Emphasis added). (Exhibit G-KGE-1, Schedule 1, p. 167).

Mr. Flaherty asserted that this approach to managing the Wolf Creek Generating Station was inadequate:

> The initial management philosophy as apparently developed did not provide the necessary emphasis to the project management function. Given the size and complexity of the proposed project, a more structured and stronger approach toward management of the contractor effort would be necessary to provide the level of oversight commensurate with potential risks. This was particularly true in light of emerging trends and conditions with respect to nuclear power and the lack of relevant experience of the Owners. (Exhibit G-Staff-63, p. VI-14).

Mr. Flaherty attributed the inadequacy to the owners' lack of understanding of the nature of the project:

> . . . the Owners did not fully appreciate the complexity and magnitude of the task facing them in the design, licensing, and construction of a nuclear generating facility. Relying on the same management approach which had been used in the past to support the construction of gas/oil-fired generating facilities was insufficient for directing a nuclear construction program. (TR. Vol. XVIII, p. 4797).

In Mr. Flaherty's opinion, the effect of the owners' "monitoring" role was reflected in subsequent inefficient performance by the prime construction contractor:

> . . . the initial level of management involvement was not sufficient enough to support . . . effective project management. With a greater level of involvement earlier in the project it is likely that some of the problems experienced related to DIC performance and overall project progress could have been avoid (sic) or mitigated. (TR. Vol. XVII, p. 4799).

4. The form of the contract between the constructor and the owners for the plant was addressed by the owners

as well as the staff. Witnesses for the owners and staff testified that industry practice for construction of nuclear power plants had dictated the use of a cost-plus type contract by the owners. In his report, Mr. Flaherty stressed the importance of the owners' direct involvement in administering cost-plus type contracts and asserted that:

> Given the high level of financial commitment to Wolf Creek, a more extensive and experienced project construction organization should have been established at project inception. Not only would this additional monitoring capability provide an organization to better challenge claims for increased cost or schedule delays by various vendors or contractors, but it would have provided the top management of the Owners a better understanding of project problems, etc., which would have facilitated the comprehensiveness and the timing of corrective management actions by the Owners. (Exhibit G-Staff-63, p. VII-19).

5. The Commission finds that management performance in the initial stages of the project was reasonable and appropriate in the selection of major contractors and in the decision to participate in the SNUPPS organization. However, the Commission finds that inherent problems arose from the management philosophy adopted by the owners in the early years. The evidence is persuasive that the owners neither defined nor understood the scope of the project. We find that the monitoring role was inefficient, ineffective, and inappropriate under the circumstances. The owners' initial philosophy led to management inefficiencies and ineffectiveness and contributed to poor contractor performance during certain phases of the project. The lack of effective, efficient management on the part of the owners at the outset limited the owners' ability to control costs and schedule to the detriment of the ratepayers.

Early Construction Period (1978-1980)

1. Mr. Huston testified concerning the effectiveness of the owners' management performance during construction of the Wolf Creek Generating Station. He asserts that "the owner and contractors exerted exceptionally strong and effective management and achieved commensurately outstanding results" in some areas. He also asserts that less than outstanding, but still acceptable, performance occurred in areas of labor productivity and overtime. (TR. Vol. I, p. 154). At page 189 of Exhibit G-KGE-1, Management Performance Evaluation, Mr. Huston states, "In 1979 and eary 1980, it was apparent that construction performance was less than required by the schedule and the budget." He then concluded in his testimony that the owners' overall management performance for the project was good. (TR. Vol. I, p. 163). Mr. Gary Fouts, construction manager of the project since 1979, voiced his opinion of the owners' approach to construction management prior to 1980 in his testimony. He testified that since the owners had no prior experience in nuclear construction management, it was proper and reasonable for them to select a contractor (DIC) with nuclear construction experience and entrust that contractor with the overall construction management of the project. He asserted that from the period 1976-1978 there was no need to change the approach, but that the owners increased their involvement in 1979-1980 when construction problems arose and the project entered a more complex phase. (TR. Vol. XXXV, p. 10478-10479).

2. Witnesses for the staff asserted that prior to 1980 construction performance never achieved expected levels. Mr. Flaherty criticized the owners' "monitoring" role, the size of the owners' initial project staff commitments and the level of management involvement. (TR. Vol. XVII, p. 4819). Criticisms of the early phases of construction management were also contained in the 1980 report sub-

mitted to the Commission by Cresap, McCormick and Paget, Inc. That report stated:

> Several factors lead to the consultants to conclude that early phases of construction management were unsatisfactory.
>
> —Owner-utility involvement at the headquarters level was insufficient.
>
> —Staffing of KG&E's construction management organization was grossly inadequate. (Exhibit G-Staff-188, p. V11-26).

3. Witnesses for the owners assert that while problems in construction occurred at Wolf creek as they do at all major construction projects, the owners' responses to the problems were timely and effective. (Fouts, TR. Vol. XXXV, p. 10478; Brown, TR. Vol. XXX, p. 9024; Huston, TR. Vol. III, p. 499-500). Mr. Flaherty contends that the level of management attention was insufficient to diagnose problems soon enough to arrest potentially harmful conditions:

> It's a question of why the problem necessarily surfaced and could it have been diagnosed sooner. (TR. Vol. XVII, p. 4946).
>
> • • • •
>
> A more relevant point would be how did the situation get to that particular point, without having been arrested earlier, and that's the kind of thing we're talking about in terms of the lack of project management capabilities in the early years may have precipitated a result of that kind, . . . (TR. Vol. XVII, p. 4957).

Mr. Flaherty pointed out that other consultants, including those employed by the owners, had concluded that the owners' management efforts should have been greater at an earlier point in time. He asserted that in view of

the level of investment, the owners should have placed more emphasis on the project. (TR. Vol. XVII, p. 4875-4876).

4. Special staff witness Lawton C. Mitchell asserted that the owners' management performance was deficient in four respects: a) lack of experience on the part of constructor; b) lack of commitment by the owners and constructor; c) lack of an effective cost control and scheduling system; and d) failure of the constructor to develop an effective quality program. (TR. Vol. XVII, p. 5085-5086).

(a) Mr. Mitchell asserted that more than half of the DIC management and supervisory personnel assigned to Wolf Creek had three years or less nuclear experience when they arrived at Wolf Creek. The combination of the owners' inexperience with the inexperience of the major constructor compounded the difficulty of attaining a degree of effectiveness on a nuclear project. (TR. Vol. XVII, p. 5085).

(b) Staff witness Flaherty asserted in his report that the owners did not adequately staff the project:

> The KG&E Construction Organization was understaffed at the time the Wolf Creek project mobilized for construction. A total personnel complement of only 6 people did not provide adequate coverage to represent the Owners' interests and level of risk associated with the project.
>
> * * * *
>
> The limited number of KG&E construction personnel made monitoring of project costs, schedule, and/or manpower impractical at the time the project fully mobilized for construction. At best, the personnel available would have the resources to deal with the progress of the project on an exception basis only; that is, the Owner personnel would be in a position

> to only deal with problems which were brought to their attention by vendors or contractors. (Exhibit G-Staff-63, p. VIII-18).

Staff witness Mitchell testified that the prime contractor demonstrated a lack of commitment by failing to aggressively recruit and hire nonmanual personnel during the 1979-1980 time frame. (TR. Vol. XVII, p. 5085). In his report, Mr. Mitchell stated that the ratio of nonmanual to manual labor was inordinately low throughout 1979-1980, and he suggested that this low level of nonmanual personnel support could have contributed to poor craft and quality performance during that time period. (Exhibit G-Staff-63, p. XI-15). Mr. Mitchell cited problems that occurred in issuing and implementing procedures, processing reports, interpreting inspection procedures, performing inspections, reporting progress, and planning material and manpower levels for specific work operations. (Exhibit G-Staff-63, p. XI-19 and 20).

(c) Mr. Mitchell testified that the management cost systems used by DIC lacked sufficient data to effectively understand performance or to control costs. (TR. Vol. XVII, p. 5086). He further asserted that the deficiency resulted from a management decision rather than the lack of computer software.

> This is not a function of deficiencies in computer software but the result of a management decision to collect costs at a higher level than that which is necessary to ascertain cost causation. (TR. Vol. XVII, p. 5086).

Cresap, McCormick and Paget, Inc., in its 1980 report to the Commission, asserted that the owners' budgeting process for the project suffered from major deficiencies:

> The Wolf Creek Plant's budgeting process has five major deficiencies:
>
> —weak budget development and review procedures

—inconsistent accounting for budgeted items

—inadequate budget reports

—insufficient performance analysis and follow-up practices

—cumbersome systems that support budget development and control. (Exhibit G-Staff-188, p. IX-11 and 12).

Mr. Mitchell testified further that the scheduling system in place by DIC suffered from the lack of manpower loading. (Exhibit G-Staff-63, p. XI-22). He testified that an owners' control group was established to provide an independent review of costs and schedule delays, but, that the group was not established until 1980. (Exhibit G-Staff-63, p. XI-29 and 30). Cresap, McCormick and Paget, Inc., in its 1980 report to the Commission, identified problems with the scheduling system and stated:

> Inability of the constructor to accurately anticipate manpower requirements has had a number of adverse consequences for project schedule and cost.
>
> * * * *
>
> Some temporary overstaffing has also occurred, and this has resulted in reduced labor productivity. (Exhibit G-Staff-188, p. VII-8).

Mr. Huston, witness for the owners, identified similar problems in his 1979 report to the owners:

> Electrical activities in the DIC CPM had not been leveled with available manpower.
>
> The six-month look-ahead schedule did not contain adequate definitions of various commodities; it did not provide management appropriate information to identify what work needed to be performed or in what sequence the work should be undertaken.
>
> In the quantity tracking system, installation of bulk items was reported as complete prior to accept-

> ance by Quality Control. It should be recognized that significant rework occasionally resulted from these QC inspections. (Exhibit G-Staff-63, p. XI-29).

He testified that the scheduling problem went unsolved for a period of time and that in his judgment, the logic in the schedule should have been corrected earlier. (TR. Vol. III, p. 534). In April 1980, Mr. Huston concluded in a report to the owners:

> . . . The current schedule program provides the data management needs in the civil and major equipment areas but is lacking in the piping, instrumentation, and electrical areas.
>
> The constructor has a CPM program with the capability to define priority schedule activities. However, problems with logic, durations, and completeness prevent it from presenting a total picture of critical project activities.
>
> * * * *
>
> The optimum size work force can work on the proper sequence of activities only when a schedule is prepared that accurately identifies this work sequence.
>
> The Owners need to improve and strengthen their schedule interface with the constructor. (Exhibit G-Staff-5, p. 11).

Mr. Huston continued to voice concerns about the scheduling program in September 1980 (Exhibit G-Staff-6) and in January 1981 when he stated:

> DIC and Startup still have not gotten together and input system restraints into the CPM schedule.
>
> * * * *
>
> Although DIC has worked on their CPM program in recent months, it still suffers from the basic flaw of not having been manpower loaded.
>
> * * * *

DIC has not scheduled instrumentation work and there is still no adequate definition of the scope of work to be done.

* * * *

DIC has not prepared manpower curves which reflect the requirements of the new schedule. It is difficult for DIC to effectively manage their work without them. (Exhibit G-Staff-7, pp. 1 and 2).

(d) Mitchell asserted that DIC failed to develop an effective quality program which led to increased scrutiny of the project by the Nuclear Regulatory Commission (NRC). (TR. Vol. XVII, p. 5086). He further testified that while many of the shortcomings in the program were identified early in the project, similar problems occurred throughout the life of the project. The NRC expressed concern with the owners' management controls and in 1979 threatened the project with a civil penalty if the improvement was not made. (Exhibit G-Staff-63, p. XI-31). The owners were assessed a $40,000 civil penalty early in 1983 for failure to adequately control activities affecting the quality of safety-related systems. (Exhibit G-Staff-63, p. XI-33). Cresap, McCormick and Paget in 1980 identified similar problems with the quality assurance program. (Exhibit G-Staff-188, p. VII 24 and 25).

5. The Commission finds that the owners' management of the project prior to 1981 was clearly inefficient and ineffective. The evidence is persuasive that the monitoring role adopted by the owners was inappropriate, produced ineffective management, and resulted in a lack of project control. The ensuing inefficiencies and lowering of labor productivity are reflected in schedule delays and increased costs that occurred during various periods of construction. The Commission recognizes that there was no realistic alternative to the cost-plus nature of the contract utilized by the owners for construction

of the project. However, the Commission finds that the level of concern and commitment on the part of the owners in this time frame was not sufficient to administer a cost-plus type contract. In view of the nature of the contract, the cost and schedule control systems adopted by the owners were inadequate and did not provide the requisite degree of control.

6. We find that lack of management attention coupled with the lack of efficient, effective management on the part of the owners resulted in scheduled delays and increased costs that could have been mitigated by strong management action earlier in the project.

Mid-years of Construction (1981-1982)

1. Mr. Huston, witness for the owners, asserted that as the project entered the more complex stages of construction (mechanical, piping, electrical, instrumentation and startup work), the owners elected to increase their construction management staff. In addition to the expansion of the on-site staff, the owners removed some portions of work and the contract administration responsibility from DIC. The owners assumed these additional roles as well as that of site construction manager which had previously been assigned to DIC. The owners began to infuse more personnel into direct participation in the construction efforts of the project. (Exhibit G-KGE-1, p. 189-190).

2. Mr. Gary Fouts, construction manager, asserted that problems were identified by the owners early in 1980, that the owners and DIC agreed to change the project management team late in 1980, and accomplished the change early in 1981. (TR. Vol. XXXV, p. 10480). Mr. Fouts stated that during 1981, DIC changed its overall organization from an area to a discipline organization to permit greater concentration and effort in the piping and other areas. (TR. Vol. XXXV, p. 10481). DIC

increased personnel levels in pipe engineering and quality control and made changes in the pipe welding group. As a result, the weld rejection rate decreased significantly in 1981. In 1981, the owners removed instrumentation work from the DIC scope since it had been performed by the piping group with a number of problems. The owners began conducting weekly schedule meetings to track the systems and piping program. In 1982, the owners and DIC utilized a team of industrial engineers to improve piping performance and formed a Piping Task Force to make recommendations for needed changes. As a result, piping performance improved during the last half of 1982. (Fouts, TR. Vol. XXXV, p. 10482).

3. Mr. Fouts testified that the owners had identified problems in the electrical area in 1980 and began to implement changes. The owners and DIC agreed to change personnel and formed a joint task force to improve electrical productivity. Mr. Fouts asserted that electrical performance improved significantly in 1981 so that energization was completed on schedule. In addition, Mr. Fouts asserts, the DIC electrical group worked closely with Bechtel to minimize the schedule impact of the many design changes mandated by regulatory requirements. (TR. Vol. XXXV, p. 10484-10485).

4. In Exhibit G-KGE-1, Mr. Huston enumerated the steps the owners and DIC took to effect changes and improve performance in the period 1981-1982. He stated the owners held detailed meetings with Bechtel and Westinghouse to expedite design changes; requested that EBASCO evaluate the schedule to determine if a second shift would be of benefit; removed two piping systems from the DIC scope and assigned the work to General Electric; established a Construction Completion and Startup Testing Task Force; and established a Quality Control Group in addition to the Quality Assurance Group. (Exhibit G-KGE-1, p. 267-268).

5. Mr. Flaherty testified that the owners responded in timely fashion to problems that began to emerge in 1979. He stated the owners took a firmer stance in dealing with the prime contractors and that consultants and KG&E personnel became much more involved in planning and budgeting, particularly with respect to contractor provided plans and reports. (TR. Vol. XVII, p. 4798-4799). In Mr. Flaherty's management report on Wolf Creek, he states that the owners' construction management organization implemented in 1980 produced a much more effective means of monitoring the constructor's progress and performance. (Exhibit G-Staff-63, p. VII-19).

6. In the staff report, Mr. Mitchell observed that in October 1981, KG&E management had judged the DIC overall management performance to be less than acceptable. The ranking assigned to DIC by KG&E management was 4, based on a scale of 1 to 10, which was considered low enough to warrant its removal from the project. (Exhibit G-Staff-63, p. XI-43). Mr. Flaherty testified that the owners took actions to initiate positive changes in DIC's performance. The actions included replacing certain DIC personnel, encouraging DIC to perform more responsibly and to more aggressively manage certain activities, and to remove certain portions of work from DIC's area of responsibility. (TR. Vol. XVII, p. 4958).

7. The Commission finds that in some instances the owners' management of the project began to improve in 1980 and that definite improvement in management performance was apparent from 1981-1982. The evidence clearly indicates that as the owners abandoned a passive role and began to aggressively manage the project, improvements in performance occurred. The increase in the level of commitment on the part of the owners through the assignment of a construction manager, the increase in the size of the owners' on-site staff, the de-

cisions to change some Daniel personnel, and the increase in Bechtel's on-site liaison staff provided much-needed stimulus for positive change. The management inefficiency and ineffectiveness that had been apparent in earlier periods began to dissipate once the owners began to assert positive and aggressive control of the project.

Completion Stage (1983 to present)

1. Mr. Huston described the owners' actions to maintain improved performance at Wolf Creek. In response to overall construction deterioration in the first quarter of 1983, the owners required DIC to replace several members of top management at Wolf Creek. Mr. Huston asserts that the owners hired a Project Director experienced in completing nuclear projects and injected owner personnel in contractor organizations where improved performance was needed. (Exhibit G-KGE-1, p. 269). In addition, the owners placed a limit on overtime which was adversely affecting productivity; required that Westinghouse replace its project manager; and requested that Bechtel increase its site liaison staff to facilitate engineering resolutions of problems on critical activities. (Ibid., p. 269). He stated that by the end of 1983, construction had turned over to Startup most of the critical systems, except for a number of hardware and software items on these systems, and that increased management emphasis was placed on completion of those items.

2. Mr. Fouts stated the owners continued their efforts to optimize piping performance in 1983 by forming a Document Review Task Force to facilitate document review, and by infusing owner personnel into the DIC piping organization. (TR. Vol. XXXV, p. 10483).

3. Mr. Wilson Cadman, Chief Executive Officer and President of KG&E, asserted in his testimony that in November 1983:

> . . . we were coming down the wire with a plant that was well under way, minimum trouble. We looked

> at our ability to continue the financing of the plant and we set ourselves to the task of determining the way that we could bring the plant in with whatever restructuring of management was necessary, whatever steps had to be taken, and keeping in mind the foremost direction of the company and our policy, our stated policy, on the construction of Wolf Creek to bring that plant in safely and as nearly as reasonable as a contemporaneous plant could be built. (TR. Vol. X, p. 2797).

He testified concerning the management effort in July 1984:

> Our energies were turned to the management of the plant, continuing to adjust to the ever increasing requirements of completion and to bring on to the site whatever levels of management with new forms of expertise that could be found anywhere in the world to do that job. (TR. Vol. X, p. 2798).

4. Mr. Mitchell, special staff witness, observed improved performance during this time frame in the resolution of nonconformance reports:

> The timing of NCR resolution was slow in the early years of the project (1977 through 1980). Improvement was noted beginning in 1981 with the most significant results being achieved in 1983 and 1984. This time period coincides with the time period in which revisions were made to DIC procedures to improve the tracking of discrepancies. (Exhibits G-Staff-63, p. XI-42).

5. Mr. Flaherty, special staff witness, testified that in the later stages of the project:

> . . . the owners appeared to have a more thorough and comprehensive understanding of the project complexity, a deeper appreciation of project require-

ments, and a greater commitment to more active involvement in project management. This was evidenced by a revamping of the project management organization, acquisition of more and more experienced personnel, and renewed dedication to effective project leadership and management. (TR. Vol. XVII, p. 4820).

In his report, Mr. Flaherty described the level of management participation during the completion phase of the project:

> The level of direction and participtation has continued to increase to the point now where KG&E employees and/or contractors have been secunded directly into the DIC organization, with the concurrence of DIC management, in order to expedite completion of the project. Highly experienced nuclear personnel have been brought in during the last 1-2 years. (TR. Vol. XVII, p. 4799).

6. Mr. Huston stated that fuel load began at Wolf Creek on March 12, 1985. (Exhibit G-KGE-175, RGS-0103, p. 2).

7. Mr. James Haines, Counsel for Kansas Gas and Electric, announced that the Wolf Creek Generating Station went critical at 7:45, May 22, 1985. (TR. Vol. VIII, p. 2008).

8. The Commision finds the evidence persuasive that during the final stages of the project, 1983 to present, the owners sought to continue the improved management performance that had been attained in the prior period from 1981 thruogh 1982. Through an increased level of commitment and attention to project needs, the owners achieved a higher degree of management effectiveness which had been lacking in the prior phases of the project. The Commission further finds that the increased efforts resulted in commensurately favorable progress and achievement in the completion stage of the project.

C. *QUANTITATIVE ANALYSIS—COST*

1. In the Management Performance Evaluation, the owners presented a comparative analysis of Wolf Creek utilizing a narrative, supplemented by charts, to compare certain variables regarding schedule and costs at Wolf Creek to similar variables at other nuclear power plants. The owners contend that their analysis presents the most objective evidence of the effectiveness of management performance at Wolf Creek. We find, however, that the owners' analysis is flawed by limitations in the survey methods used to obtain data, that in some instances the data were incomplete, misleading, or irrelevant, and do not support the owners' conclusions. We reject the suggestion that comparisons of statistical data provide proof of the quality of management performance at any project. The statistics merely offer numerical comparisons of certain variables and do not provide evidence of prudent management action or guidance to direct and control the project or to mitigate potentially harmful situations.

2. Another method used by the owners to determine the prudence of the costs incurred at Wolf Creek was to analyze in detail the reasons for the manhour and cost increases. A reconcilation group consisting of employees of Bechtel, Daniel and KG&E provided this analysis for the owners by first attempting to reconcile the cost and manhour overruns between the Definitive Estimate and the 1983 Forecast. A second major reconciliation effort was undertaken to reconcile manhour and cost overruns between the Definitive Estimate and the 1985 Forecast. Due to the owners' belief that the 1983 reconciliations were not complete and contained many errors, the 1985 reconcilation effort utilized different methodologies to analyze the manhour and cost overruns. The owners contend that the 1985 reconciliation contained updated information and reconciled every manhour increase from the definitive estimate. The reasons cited and

quantified in the 1983 Forecast and 1985 Forecast reconciliation packages are summarized into broad categories in the owners' Reconciliation Management Summary, an exhibit presented by the owners' witness, Charles Huston. In addition to the original 1983 and 1985 Forecast Reconciliations, the owners prepared an "updated" reconciliation to the 1983 Forecast. This reconciliation basically assigns the same reasons for the variances which were identified in the 1985 Forecast and uses 1983 actual quantities or prorates the reasons to reconcile the 1983 Forecast variance. The owners contend that based on their reconciliation efforts, all manhour and cost increases were prudently incurred. However, we note that the owners' witness Huston identified at net 1,866,000 manhours due to lower than average productivity in the construction of WCGS. This increased total project cost by $28,359,000. (Exhibit G-KGE-1, MPE, p. 250).

3. We have examined the owners' reconciliation analyses. We find that the cost tracking system in place at Wolf Creek was not sufficiently developed and utilized to permit the identification and quantification of the causes for manhour variances in many instances. The cost tracking system contained obvious inadequacies by its failure to capture costs at a detailed level and also its failure to identify reasons for costs overruns at a broader level. For example, the reconciliation group was unable to ascertain, from the project's cost tracking system, the actual amount of payroll taxes and insurance included in the 1985 Forecast for a particular area. Also, the cost tracking system lacked the capability to determine unit rates in certain areas. The owners alleged that a cost system to precisely track every reason for every increased manhour would not have been cost beneficial. They estimated the cost for such a system at $200 million. This amount was calculated by taking 10 percent of the projected project cost minus AFDUC. (Fouts, TR. Vol. XXXV, p. 10516). We find that estimating the costs of

a cost system in this manner does not produce a reliable estimate for such a cost system. We also find that the owners failed to adequately analyze other alternatives for designing and implementing a cost system which would provide reliable data to document and quantify the causes of overruns. We believe the owners acted imprudently in not developing and utilizing a cost tracking system which would enable the owners to accurately identify and quantify causes for overruns. This is an essential responsibility for the owners due to the nature of the cost plus contract negotiated with Daniel International Corporation, the constructor.

4. The owners' inadequate cost tracking system resulted in a lack of substantive historical cost data to support the reconcilation process. Therefore, the reconciliation group was often required to "fill the gaps" by using Order of Magnitude estimates to quantify the causes for manhour and cost overruns. We believe these estimates utilized methods which failed to adequately support the identification and quantification of such overruns.

5. One method used extensively throughout the reconciliation to the 1985 Forecast was the quantification of manhours by subtraction. Under this method, a large number of manhours were reconciled with no supporting documentation, and other reasons which contributed to the manhour variance were concealed at the owners' discretion. Interviews were also relied upon extensively in the 1983 and 1985 reconciliation packages, often without any other supporting documentation. Sometimes interview information was ignored by the Reconciliation Group although it may have been corroborated. Contrary to the owners' assertions, we find that not all manhours were adequately reconciled in the 1985 Forecast reconciliation and updated 1983 reconciliation. This is due to the widespread use of the subtraction method and because unreconciled manhours were often reclassified by other

terms such as "remaining activities." It is also our finding that some of the methods employed in the reconciliation process were too simplistic to provide meaningful estimates.

6. We also find that it was not the purpose of the Reconciliation Group to determine the prudence of manhours and cost overruns. Charles Linderman, the manager of the Reconciliation Group, testified that the group did not possess the qualifications to determine if the overruns were imprudently incurred. We conclude that the owners' reconciliations of cost and manhour overruns fail to reliably and accurately assess the causes for such increases.

7. Project Management Associates (PMA), serving as special staff, prepared an independent analysis of the manhour increases between the Definitive Estimate and the 1983 Forecast. PMA analyzed cost overruns in the following nuclear cost categories:

(1) piping and whip restraints;

(2) mechanical systems;

(3) heating, ventilating and air conditioning systems;

(4) electrical systems and instrumentation;

(5) structural steel;

(6) special finishes;

(7) site work; and

(8) concrete.

8. PMA recommended that 4,036,723 manhours be disallowed because they were either imprudently incurred, unreconciled, or were attributable to causes which were controllable by owner management, and that the value of the WCGS plant be reduced by $82,570,600, for ratemaking purposes, to reflect such disallowance.

9. The methodology employed by PMA in quantifying unreasonable overruns consisted of three major steps. First, the definitive estimate and the 1983 forecast were analyzed in detail in order to identify quantities, unit manhour rates, and reported percentages of completion at the time the 1983 forecast was developed. Second, indicators of cost performance disclosed by the owners' "Reconciliation Packages", responses to data requests, and a study of design change documents and extra work items were analyzed to identify reported or potential events which would represent causes for overruns. Third, PMA conducted a study to quantify the manhour overruns which could be attributed to causes of cost increases singled out. In most instances the development by staff of a completely independent estimate of the impact of specific cost causation was required due to inaccuracies in the approach of the owners' reconciliation packages or due to deficiencies in Daniel's cost control system. PMA was unable to reconcile all of the manhour overruns due to deficiencies in Daniel's cost control system and the inadequacies of the owners' reconciliation packages. PMA recommended disallowance of all such unreconciled manhours.

10. The owners presented evidence in their rebuttal testimony to refute the disallowances recommended by PMA. We find that PMA utilized sound methodology and that generally PMA's manhour and cost disallowances are supportable. We have examined each PMA proposed disallowance as well as the owners' rebuttal to it. With the following exceptions, we find PMA's analysis and recommendations reasonable and proper. The following contentions of the owners have merit. Therefore, we find PMA's recommended manhour and cost disallowance should be adjusted as follows:

(A) Piping Area:

(1) PMA incorrectly used quantities to pro-rate manhours to develop their manhour reconciliation

for capping and uncapping welds. The effect of this adjustment is to reduce PMA's disallowance by 349,131 direct manhours and $7,561,900 in direct and indirect costs.

(2) The owners' cleanliness program was necessary and not overzealous in the piping area as alleged by PMA. This adjustment reduces PMA's disallowance by 28,320 direct manhours or $613,400 direct and associated indirect costs.

(3) The manhours budgeted for construction completion were reasonably expended and should be allowed. This adjustment reduces PMA's disallowance by 838,000 direct manhours and $18,151,200 in direct and associated indirect costs.

(4) In reconciling whip restraints, PMA used incorrect definitive estimate amounts and did not properly account for the manhour variance. This adjustment reduces PMA's disallowance by 94,200 direct manhours and $2,040,300 in direct and indirect costs.

(B) Structural Steel Area:

(1) PMA did not consider the effects of lighter steel used in the erection of structural steel which resulted in more members to install than was anticipated in the Definitive Estimate. This adjustment reduces PMA's disallowance by 153,388 direct manhours and $3,070,700 in direct and indirect costs.

(2) PMA did not consider the effects of lighter weight steel in the Miscellaneous Steel category. This adjustment reduces PMA's disallowance by an additional 38,002 direct manhours and $760,700 in direct and indirect costs.

(3) PMA used an incorrect unit rate for installation of trumplets. This adjustment reduces

PMA's disallowance by 4,720 direct manhours and $94,400 in direct and indirect costs.

(C) Electrical Area:

(1) PMA used incorrect 1983 Forecast quantities by failing to include 587,345 LF of cable. This adjustment reduces PMA's disallowance by 65,500 direct manhours and $1,440,900 of direct and indirect costs.

(2) PMA overstated the definitive estimate manhours for the installation of penetrations. This adjustment increases PMA's disallowance by 8,830 direct manhours and $194,300 of direct and indirect costs.

(3) PMA used incorrect Definitive Estimate and 1983 Forecast manhours for final system check, which is included in Miscellaneous Items. This adjustment reduces PMA's disallowance by 8,920 direct manhours and $196,237 of direct and indirect costs.

(D) Building Finishes Area:

(1) PMA used incorrect Definitive Estimate and 1983 Forecast manhours to reconcile doors. Also, PMA did not consider the effect of repairs and replacement of doors, the additional safety and security requirements, and design changes which resulted in additional handling and manhours to install. This adjustment reduces PMA's disallowance by 27,798 direct manhours and $525,800 in direct and indirect costs.

(2) PMA did not consider that additional penetrations were necessary to accommodate design changes for additional security monitoring equipment in the roofing area. This adjustment reduces PMA's disallowance by 538 direct manhours and $10,200 in direct and indirect costs.

(E) Concrete Area:

(1) PMA used insufficient complexity factors to reconcile manhours required for construction openings and out-of-sequence openings. This adjustment reduces PMA's disallowance by 58,038 direct manhours and $956,110 in direct and indirect costs.

(2) The productivity rate used by PMA to estimate the effects of cold weather was insufficient. This adjustment reduces PMA's disallowance by 68,128 direct manhours and $1,122,390 in direct and indirect costs.

(3) PMA incorrectly assumed that manhours for reinforcing steel fabrication shop were included in work authorizations. Additionally, PMA allocated insufficient manhours to the on-site fabrication shop. This adjustment reduces PMA's disallowance by 402,908 direct manhours and $6,595,290 in direct and indirect costs.

(F) HVAC Area:

(1) PMA incorrectly transferred 8,910 manhours which should have remained in the HVAC area. This adjustment increases PMA's disallowance by 8,910 direct manhours and $186,000 in direct and indirect costs.

(2) PMA should have allowed additional manhours for design changes in reconciling ducts and supports. This adjustment reduces PMA's disallowance by 32,000 direct manhours and $668,000 direct and indirect costs.

(3) PMA incorrectly disallowed manhours for converting Non-Q duct to II/I based on Corrective Action Report 13, due to the fact that CAR-13 applies only to the piping area. This adjustment reduces PMA's disallowance by 10,500 di-

rect manhours and $219,300 direct and indirect costs.

(4) PMA used an incorrect normative rate for duct and supports. This adjustment reduces PMA's disallowance by 24,210 direct manhours and $505,500 direct and indirect costs.

(5) PMA disallowed certain manhours associated with changes to equipment and accessories. These unreconciled manhours are found to have been justifiably expended. This adjustment reduces PMA's disallowance by 21,900 direct manhours and $457,200 direct and indirect costs.

11. The total net effect of the adjustments in the above areas is to reduce PMA's disallowance by 2,208,461 direct manhours and $44,609,200 direct and indirect costs. We find that out of the total PMA recommended disallowance of construction costs of 4,036,723 direct manhours and $82,570,600 direct and indirect costs, a total of 1,828,262 direct manhours were imprudently incurred, either because those manhours resulted from imprudent management actions, were controllable by management, or were not reconcilable due to deficiencies in the owners' cost tracking systems. This finding is confirmed by the testimony of Mr. Huston that a net 1,866,000 manhours at the WCGS were incurred due to lower than average productivity. Therefore, we find that the related direct and indirect costs of $17,841,858 should be excluded from both a return on and recovery of KG&E's share of its investment in Wolf Creek. We find that $17,841,858 should be excluded from both a return on and recovery of KCPL's share of its investment in Wolf Creek. We find that $2,277,684 should be excluded from both a return on and recovery of KEPCo's share of its Wolf Creek investment.

12. We find that DIC received fees which were based on the total scope of work as defined in its contract.

Portions of the work scope such as instrumentation installation were subsequently removed from DIC's control. Based upon this finding, we conclude that an additional $450,000 was imprudently incurred as fees paid to DIC for work which they did not perform or administrate, but which was performed by other contractors. (Huston, TR. Vol. IV, p. 1005). For this reason we find that $211,500 should be excluded from both a return on and recovery of KG&E's share of its investment in Wolf Creek, $211,500 should be excluded from both a return on and recovery of KCPL's share of its investment in Wolf Creek, and $27,000 should be excluded from both a return on and recovery of KEPCo's share of its investment in Wolf Creek.

D. *QUANTITATIVE ANALYSIS—SCHEDULING*

1. We find that the owners of Wolf Creek have not presented any detailed reconciliation or analysis of the schedule slippage that occurred at the Wolf Creek construction project.

2. The owners did compare the overall schedule at Wolf Creek to other nuclear power plant construction schedules. They conclude that Wolf Creek's shorter construction schedule is evidence of management prudence. We do not believe such a comparison can be so conclusive. Comparing one plant to other plants in the industry does not adjust for inconsistencies among the plants. Wolf Creek may have had a shorter schedule than other plants, but we find, based on PMA's analysis, that it had a longer schedule than it should have had because the owners failed to avoid or mitigate controllable delay. In addition, we find the owners' comparative analysis contained basic flaws in the manner in which it was conducted, as pointed out in staff's brief, pages 233-241.

3. We have examined the schedule analysis that was performed independently by PMA using information gathered through data requests and interviews. PMA re-

viewed the Wolf Creek construction schedule from the start of construction in February 1977 through February 1984, when fuel load was scheduled to begin in October 1984. In February 1977, fuel load was expected to begin in May 1982. By comparing the original schedule to the February 1984 schedule, PMA found a 27 month difference in schedule duration to the point of fuel load. PMA's analysis of the change in the schedule duration is based on the critical path method. A critical path is the longest, time-wise, chain of logically interrelated activities in a schedule network. PMA's research included consideration of numerous activities and critical paths, but PMA selected only the three most critical paths for detailed analysis because PMA determined that these contained the activities that were in a logical sequence from receipt of the limited work authorization (LWA) to the date of fuel load as projected in the February 1984 construction schedule.

4. The three most critical paths start with the reactor building civil/structural work and flow through three separate reactor building mechanical system activities and are followed by preoperational testing and fuel load. The three major reactor building mechanical systems that were examined in detail include the reactor coolant system, the chemical and volume control system and the component cooling system. PMA determined what part of the schedule slippage on each sequence was uncontrollable, controllable, unreconciled, and mitigated (gain in schedule). PMA considered all increases in scope (quantity) to be the result of uncontrollable slippage, and thus recommended that this slippage be allowed. Uncontrollable slippage was based on the added quantities times the definitive estimate unit rate. The owners criticized PMA's use of the Definitive Estimate (D.E.) unit rate as not adequately allowing for uncontrollable slippage due to increased complexity. We have examined PMA's computations and find that in multiplying the Definitive Estimate unit rate times the 1980 and 1985 quantities, PMA

reasonably accounted for quantity and complexity increases among the heterogeneous commodities. We find that PMA properly accounted for uncontrollable slippage in this manner. Controllable and unreconciled slippage is disallowed in PMA's analysis, but only after it is offset by schedule mitigations or gains. In other words, all months of mitigation or gain are applied against controllable and unreconciled slippage to reduce the amount of disallowed schedule slippage. Controllable slippage was calculated using an average unit rate taken from the owners' Management Performance Evaluation (MPE). (Exhibit G-KG&E-1). The average unit rate was applied to the change in quantities between 1980 (when quantities were first accumulated by area) and 1985 (the latest available forecasted quantities). This yielded the manhours attributable to productivity change. We find that PMA's use of the industry average unit rates in the MPE is reasonable.

5. Of the three critical path sequences analyzed, PMA selected the one with the greatest uncontrollable slippage, because even if the project had experienced no controllable delay, there still would have been a 14.5 month delay for reasons beyond the owners' control. Using this analysis, PMA determined that in the sequence with the greatest uncontrollable delay, 14.5 months were uncontrollable, 37 months controllable, 1 month unreconciled, and 23.5 months were mitigated. PMA applied the 23.5 month gain as an offset to the 38 month controllable and unreconciled schedule delay to yield a net 14.5 month controllable delay. After examining this analysis in detail, we find it to have merit.

6. PMA identified numerous deficiencies and shortcomings with the DIC scheduling system. (Exhibit G-Staff-77, Schedule Report). This necessitated PMA's independent analysis. The owners have criticized PMA's methods as being mechanical, and as failing to include an analysis of all the critical paths. We find no merit

to these criticisms. PMA's analysis extended through February 1984. At that point, the Construction Intermediate Schedule (CIS) projected a fuel load date of October 1984. PMA chose this cutoff because this was the time that DIC discontinued updating and incorporating progress into its computerized construction schedule network. (Exhibit-Staff-77, Schedule Report p. 3).

7. The owners' witness, Mr. Huston, has offered an exhibit containing a list of numerous design change packages (DCPs) with construction completion dates beyond the October 1984 fuel load date. Mr. Huston concludes that regulatory change prevented the owners from loading fuel in October of 1984. The Commission does not find such a conclusion is warranted from that exhibit. (Exhibit-G-KG&E-175). We believe that if activities were critical to the October 1984 fuel load, the owners' February 1984 CIS schedule would have reflected them. There is no analysis given by Mr. Huston whether the activities listed on his exhibit are necessary for fuel load and, if they were necessary, whether they could not have been completed by the October 1984 fuel load date. The exhibit only indicates that in March 1985, some of the activities had not been completed to meet the October 1984 fuel load date, although in some cases the engineering was completed much earlier. There is no substantial evidence that PMA failed to consider all activities that affected the critical path. Indeed, we find that PMA did consider those activities on the critical path. (Exhibit G-Staff-77, p. 3; TR. Vol. XX, p. 5703; p. 5784-5785).

8. We therefore find that 14.5 months of the schedule slippage were within the control of the owners, and that the costs associated with such delay should be excluded as imprudent.

9. The issue of how to quantify the costs associated with the controllable schedule delay must be addressed next. PMA's analysis used the AFUDC and indirect/overhead costs associated with the last 14.5 months of

the project given the October 1984 fuel load date. PMA consulted the owners' Wolf Creek "projected construction expenditures" to obtain the AFUDC amounts for the last 14.5 months preceding the October 1984 fuel load date. (Exhibit-Staff-77, Schedule Report, p. 51). The total, $285,878,400, was distributed among the owners using the owners' recorded allocation. To this amount of AFUDC, PMA added a similarly computed amount, $78, 372,400, for indirect/overhead costs attributable to the 14.5 months controllable slippage. PMA reasoned that these amounts appropriately measured the cost of controllable delay because these costs were time related, that is, these costs continued to accumulate as the schedule was extended.

10. We find that PMA reasonably quantified the indirect/overhead costs attributable to the controllable delay because these costs accumulating at the end of the project would not have been incurred if the controllable slippage had been eliminated. We direct that the indirect/overhead cost be apportioned among the owners according to their percentage shares of WCGS: KG&E: $36,835,028; KCPL: $36,835,028; KEPCo: $4,702,344.

11. Applicants contend that even if there were avoidable delays in construction of Wolf Creek, exclusion of AFUDC is not a proper remedy. Witness Fairchild contended that ratepayers are not harmed by delays in construction unless their time value of money is less than the AFUDC accrual rate of the utilities. Fairchild suggested that implicit in the statutory policy to exclude CWIP from inclusion in rate base is a determination to the contrary; i.e., ratepayers have a greater time value of money than the AFUDC accrual rate. (TR. Vol. XXXII, p. 9637).

12. Witness DeStefano for KCPL argued that any disallowance for schedule slippage should be offset by the benefit to ratepayers in not paying increased rates earlier. His analysis showed that at a ratepayer dis-

count rate of 10.14 percent, ratepayers would be indifferent to "either currently rate basing the full capital cost of $1,367.2 million requested in this case or rate basing a capital cost of $1,187.5 million 14.5 months earlier." (TR. Vol. XXXVII, p. 11035).

13. Mr. Fairchild also disputes the use of AFUDC accumulated at the end of the project to quantify the costs of delays that occurred earlier in the project. He analyzed the controllable schedule delays calculated by PMA and testified that part of the controllable delay occurred from December 1978 through July 1979, part in 1980, and part between 1980 and 1984. Mr. Fairchild recalculated the AFUDC that would have been incurred had there been no delay, and determined the difference between actual versus no delay using the midpoint of each period to quantify the AFUDC. This method determined that $166,189,000 is the proper amount of AFUDC to be attributed to the 14.5 month controllable delay.

14. Both Mr. Fairchild's and Mr. DeStefano's arguments that exclusion of AFUDC is not a proper remedy, suffer from infirmities. Mr. Fairchild assumes without proof that ratepayers have a higher time value of money than the utilities, while Mr. DeStefano made mathematical errors and questionable assumptions. However, we find it necessary to only address the conceptual arguments. Both witnesses basically argue that if the construction schedule had not encountered delays, ratepayers may have had to pay for a lower cost plant but they would have had to pay for it earlier. Consequently, the argument goes, ratepayers benefited from the delays because they had use of their money longer than would have been the case with earlier completion of the project.

15. In this portion of the order, the Commission is determining what Wolf Creek plant construction costs are reasonable. This assumes that a utility, in constructing a plant, has an obligation to build the facility in an efficient manner and at a reasonable cost. There is no ques-

tion that delays in the construction schedule increase the total costs of the plant, just as much as increases in direct costs of the plant. It strains credibility to suggest that when the total costs of the plant increase unreasonably, the ratepayers are not harmed because they avoid paying for the plant earlier. Such a determination would mean that utilities have no incentive to finish projects without unnecessary delays because increases in costs would be passed on automatically to ratepayers. Utilities could prolong construction indefinitely without facing any consequencies of inefficient or unreasonable construction management practices.

16. This is not to suggest that recognition of the ratepayers' time value of money is always inappropriate. Clearly, in some circumstances, it is a factor which must be considered. In this context, however, it is not reasonable to even attempt to determine whether ratepayers benefited from construction delays. In addition to posing the wrong question, such an analysis requires questionable assumptions to be made. For instance, Mr. DeStefano's analysis assumed full rate base treatment of Wolf Creek under both the February 1984 and April 1985 completion date scenarios. Given our decisions in other portions of this order, such assumptions are unwarranted. We cannot speculate what rate base treatment would have been accorded Wolf Creek had it been completed fourteen and one-half months earlier. We may safely assume, however, that under the considerations we apply today, the treatment of Wolf Creek could vary over time. We find that exclusion of AFUDC associated with the controllable delay is a reasonable method of quantifying the cost of that delay.

17. We recognize that there is no single precise method of quantifying the AFUDC costs of controllable slippage at the Wolf Creek project. Although we find merit in Mr. Fairchild's quantification method, we are not completely without reservation concerning its use. First, it

quantifies the AFUDC based on expenditures to date rather than total projected costs. Historically, the percentage of AFUDC expenditures has lagged behind the percentage of construction complete. In this manner, Mr. Fairchild's analysis may understate the amount of AFUDC attributable to the delay since the entire project, not merely a portion of it, was delayed. Second, we believe that increases in actual direct costs could be associated with the delays which might be included in PMA's determination. Indeed, applicant's arguments ignore the fact that construction delays allow inflationary impacts to increase the costs of construction beyond the increased AFUDC. Third, Mr. Fairchild's analysis ignores the increased cost of capital to the owners which resulted as completion of the project was delayed.

18. Nevertheless, we conclude that Mr. Fairchild's quantification of AFUDC is a more reasonable proxy of the AFUDC costs associated with the controllable schedule delay than the PMA analysis. The PMA analysis, we believe, overstates the amount of AFUDC attributable to controllable delay. We find determining the difference between actual and what should have been incurred had no delay occurred, is the more reasonable method of quantifying controllable schedule slippage. The $166,189,000 of AFUDC calculated shall be apportioned among the owners as allocated by Mr. Fairchild in his analysis: KG&E: $73,286,000; KCPL: $77,092,000; KEPCo: $15,811,000. (TR. Vol. XXXII, p. 9636).

19. To this amount of AFUDC, we must add the indirect/overhead costs calculated by PMA as associated with the controllable delay. This yields a total of $244,561,400 as the cost of the 14.5 months controllable schedule slippage. We find that this amount should be excluded from total WCGS construction costs. When the disallowed costs are apportioned among the owners as directed above, each owner's share of WCGS construction costs disallowed as inefficiently and imprudently incurred,

is as follows: KG&E: $110,121,028; KCPL: $113,927,028; KEPCo: $20,513,344. We deny recovery of and a return on this part of each respective owners' investment in WCGS.

V. *NEED FOR CAPACITY*

A. *INTRODUCTION*

1. The Commission has received and considered with interest the testimony and exhibits of Dr. Richard A. Rosen in these proceedings concerning the economic loss expected to be incurred as a result of the commercial operation of Wolf Creek. (Rosen, TR. Vol. XXIII, XXIV, and XXV). As indicated *infra*, the Commission's findings implicitly accept Dr. Rosen's conclusions that large economic losses would result to the customers of KG&E from full rate base treatment of Wolf Creek, that Wolf Creek represents excessively expensive capacity, and that risk sharing principles should be applied in these dockets to properly apportion responsibility for excessive costs between KG&E ratepayers and shareholders. The Commission has been influenced, however, by the argument in KG&E's brief that:

> Dr. Rosen admits that his analysis is subject to "considerable uncertainty" in its underlying projections. (TR. XXIII, 6771). He also admits that his analysis becomes even more uncertain as it goes out in time. (TR. XXIV, 6994). (KG&E Brief, p. V-24).

In the view of the Commission, projections made by KG&E witnesses on the same subject are vulnerable to the criticisms KG&E has leveled at Dr. Rosen. Additionally, it appears to the Commission that often KG&E witnesses proposed projections much more questionable than those sponsored by Dr. Rosen, (for instance, Roen, TR. Vol. VII, VIII, XXIX; Fitzpatrick, TR. Vol. XXVII and XXVIII; Backus, TR. Vol. XXIX). Nevertheless, the Commission finds that the life cycle cost analyses presented are subject to a degree of uncertainty and the

Commission chooses to base its decision on what it believes to be a more objective standard.

2. The Commission finds that analysis of the need for Wolf Creek capacity and the reasonableness of the cost of Wolf Creek capacity should be addressed independently. KG&E's need for Wolf Creek capacity will be addressed in this section of the Order. The remaining question of the reasonableness of the cost of Wolf Creek capacity will be addressed in Section VI of the Order.

B. *APPLICATION OF THE "USED AND REQUIRED TO BE USED STANDARDS"*

1. K.S.A. 1984 Supp. 66-128 provides, in pertinent part, that the Commission:

> . . . shall determine the reasonable value of all or whatever fraction or percentage of the property of any common carrier or public utility governed by the provisions of this act which property is *used and required to be used* in its services to the public within the state of Kansas, whenever the commission deems the ascertainment of such value necessary in order to enable the Commission to fix fair and reasonable rates, joint rates, tolls and charges. (Emphasis added).

The Commission deems the ascertainment of the reasonable value of public utility property to be necessary in these dockets in which KG&E seeks a return of and a return on investment and, consequently, the Commission deems it appropriate to determine whether all or a fraction or percentage of KG&E's interest in Wolf Creek is used and required to be used in its services to the public.

2. If public utility property is not found to be used and required to be used, a deferral or "phase-in" of costs into rate base and an exclusion of carrying costs on the value of property deferred is permissible in accordance

with the terms of K.S.A. 1984 Supp. 66-128b which provides as follows:

> The commission may require a public utility to defer inclusion of all or any portion of the reasonable value of property determined not currently used and required to be used and may require the phase-in of such value over any period of time and in such increments as it determines to be appropriate. If the Commission requires a public utility to defer the inclusion of any portion of such reasonable value and orders a phase-in of such value, it may exclude any or all of the carrying or finance costs incurred after the date of its determination and throughout the period of any deferral or phase-in as so ordered.

However, if the Commission determines that all or a portion of the costs of acquisition, construction, or operation of a generating facility were incurred due to a lack of efficiency or prudence or were incurred in the acquisition or construction of excess capacity, then the Commission may exclude all or a portion of such costs from eligibility for recovery through rates in accordance with K.S.A. 1984 Supp. 66-128c which provides as follows:

> The state corporation commission, in determining the reasonable value of property under K.S.A. 66-128, and amendments thereto, shall have the power to evaluate the efficiency or prudence of acquisition, construction or operating practices of that utility. In the event the state corporation commission determines that a portion of the costs of acquisition, construction or operation were incurred due in whole or in part to a lack of efficiency or prudence, or were incurred in the acquisition or construction of excess capacity, it shall have the power and authority to exclude all or a portion of those costs from the revenue requested by the utility.

> For the purpose of this act, "excess capacity" means any capacity in excess of the amount used and required to be used to provide adequate and reliable service to the public within the state of Kansas as determined by the commission. The commission may in its discretion prohibit or reduce the return on costs which were incurred in constructing, maintaining or operating excess capacity.

3. With the exception of certain older gas units, each generating facility on the KG&E system, including Wolf Creek, will be employed in the near term to serve KG&E system energy requirements. The fact that Wolf Creek should perform at a relatively low incremental operating cost, thereby requiring its use from an economic dispatch perspective, is implicit in Dr. Rosen's prospective Wolf Creek-In economic analysis which dispatches each of KG&E's units (Rosen, TR. Vol. XXIII, XXIV, and XXV) and was explicitly confirmed by KG&E witness Lucas. (Lucas, TR. Vol. XII, p. 3110). No party has argued that Wolf Creek will not be used to provide service to KG&E's customers (KG&E Brief, p. V-1). The Commission finds that Wolf Creek will be "used" by KG&E within the intent of K.S.A. 1984 Supp. 66-128 *et seq.*

4. Whether Wolf Creek is "required to be used" by KG&E in its services to the public within the State of Kansas is dependent upon a number of factors which do not remain static over time. As a result, the Commission's findings concerning the degree to which Wolf Creek is required to be used by KG&E must necessarily be revisited in subsequent rate proceedings as system characteristics such as available capacity and demand change. On one prior occasion the Commission interpreted and applied the "used and required to be used" standard to the application of an electric utility seeking partial rate base treatment and phase-in of a new gen-

erating facility. *In the Matter of the Application of Sunflower Electric Cooperative, Inc.*, Docket No. 143,069-U, 84-SNFE-369-R, the Commission considered the ratio of Sunflower's peak demand plus reserves to its available capacity. The Commission found that:

> (t)hese indicators suggest that a percentage of the Holcolmb Unit approaching but slightly less than 60% is currently used and required to be used. (KG&E Brief, p. V-5).

The "indicators" employed by the Commission in the *Sunflower* case are suitable for application in the captioned dockets because the question of whether generating capacity is "required to be used" cannot be determined in the absence of an analysis of peak demand, reserve margin and available capacity.

5. Peak responsibility must necessarily be quantified with reference to a particular point in time. KG&E has correctly noted in its brief that:

> As this Commission and the Kansas Supreme Court have recognized, "electric utilities must plan for the future." *See Kansas Gas & Electric Co. v. State Corporation Commission*, 218 Kan. 670, 544 P.2d 1396, 1402 (1976). Utilities have an obligation to serve which requires such planning. Utilities must therefore take a long-term perspective in their generation planning. This long-term perspective is further reinforced by the long lead times associated with constructing generating facilities in today's regulatory environment. [G-KGE-21 (GIR-1), III-46]. [KG&E Brief, p. V-3].

Due to the fact that baseload generating facilities are not likely to be brought into service in discrete segments exactly paralleling changes in demand (Lucas, TR. Vol. XII, p. 3121), the Commission believes that an analysis of peak responsibility for the purpose of identifying facil-

ities "required to be used" must incorporate a planning horizon perspective. To hold otherwise would create a future disincentive to the construction of facilities which constitute the most economic type of capacity for the particular system on a *scale* that would provide additional economies to the system.

6. KG&E filed in these proceedings a load and capability forecast for the nine year period 1985-1993. [Exhibit G-KGE-41 (JRL-4); See also Exhibit G-Staff-127 (RAR-4.2)]. The selection of a forecasted reference year for an analysis of peak responsibility is made somewhat more difficult by the fact that no witness in these proceedings proposed specific standards for the selection of such a reference point. In the absence of such specific standards, the Commission finds it reasonable to select a forecasted reference year from a range of years between one-half and two-thirds of the duration of the KG&E load forecast. Due also to the absence of evidence concerning specific standards, the Commission chooses to select as the reference year the final year of the range it has found reasonable. Use of 1990 as a reference year for this analysis allows for five years of projected growth in peak demand. Five years roughly corresponds to the period required to put into operation a combustion turbine peaking unit which is an appropriate consideration in this case. It is apparent from the record that applicant not only has no actual current need for capacity, but had no projected need during much of the time Wolf Creek was being constructed. Instead, the decisions to construct and continue were based on other factors. It is consequently evident that purely from a need for capacity perspective, applicant's facilities were sufficient to meet projected demand and it could have met unexpected changes in forecasted demand by construction of a combustion turbine peaking unit. It is reasonable, therefore, to allow a five year planning period. Both Exhibit G-KG&E-41 (JRL-4) and Exhibit G-Staff-127 (RAR-4.2)

indicate that KG&E'S forecasted peak responsibility for 1990 will be 1,852 megawatts.

7. The question of the appropriate reserve margin to be allowed KG&E in determining the degree to which Wolf Creek is "required to be used" received the attention of a number of witnesses. In the view of the Commission, sole reliance upon the reserve requirement of 15 percent established by the MOKAN power pool for its members as an indicator of the appropriate utility-specific reliability reserve is inappropriate as demonstrated by the testimony of Mr. Lucas:

> The MOKAN and SWPP reserve requirements are not based on rigorous engineering studies of the unique requirements of individual member systems or, for that matter, on rigorous engineering studies of the overall requirement of the MOKAN and SWPP regions. The MOKAN and SWPP reserve requirements simply constitute minimum reserve capacity levels which the member utilities through consensus have agreed to maintain. (Lucas, TR. Vol. XII, p. 18).

Evidence presented by KG&E indicated that the minimum reserve capacity necessary to provide adequate and reliable service for the KG&E system is 22.5 percent (Lucas, TR. Vol. XII, p. 3120; Limmer, TR. Vol. XXVIII, p. 8279). Based upon a reliability analysis prepared by Dr. Rosen, the staff presented evidence indicating that both KG&E and KCPL require a 22 percent reserve margin with Wolf Creek in operation and a 15 percent reserve margin without Wolf Creek in operation. (Rosen, TR. Vol. XXIII, p. 6600-6609). Dr. Rosen noted, however, that based upon his system reliability analysis of both KG&E and KCPL, a 15 percent reserve margin is satisfactory for maintaining adequate system reliability and that reserves in excess of 15 percent should be justified on economic, not reliability, grounds. (Rosen, TR. Vol.

XXIII, p. 6617). As indicated in Section VI of this Order, the Commission has found that Wolf Creek capacity is not fully cost justified in relation to alternative generation resources at the present time and that the risk-sharing principles advocated by Dr. Rosen (Rosen, TR. Vol. XXIII, p. 6712-6734) are reasonable and require allocation of responsibility for excessive capacity costs between KG&E's shareholders and ratepayers. Because Wolf Creek is not fully justified on economic grounds, the Commission finds that ratepayer responsibility for a full 22 to 22.5 percent reserve margin is unreasonable and that the risk-sharing principles of Dr. Rosen discussed fully, *infra*, require an allocation of responsibility for necessary reserves between ratepayers and shareholders. The Commission's finding is supported by the fact that:

> For KCPL, almost one-third of its share of Wolf Creek's capacity (about 168 MW in 1992) is needed solely to provide the seven percent increase in required system reserves directly caused by Wolf Creek itself (peak load is forecast at about 2400) (Rosen, TR. Vol. XXIII, p. 6617-6618).

A similar calculation for the KG&E system indicates that almost twenty-six percent of its share of Wolf Creek capacity (about 136 megawatts in 1992) is needed solely to provide the seven percent increase in required system reserves directly caused by Wolf Creek itself (peak load is forecast at about 1,958 megawatts). [See Exhibit G-KG&E-41 (JRL-4)].

8. Dr. Rosen testified that a 15 to 20 percent reserve margin was normally deemed adequate for a large, well interconnected system (Rosen, TR. Vol. XXIII, p. 6602) and that:

> . . . most well interconnected utility systems in the U.S. plan on the basis of reserve margins in the 15

to 20 percent range for reliability. (Rosen, TR. Vol. XXIII, p. 6609).

Dr. Rosen noted that reserve margins slightly above 20 percent may be required in certain circumstances, particularly if the system relies heavily upon large nuclear units which have relatively high outage rates, but that the degree of interconnection with other utility systems could moderate the impact because:

> . . . with sufficient interconnection even heavily nuclear utilities may not need high reserves. One such utility, Commonwealth Edison, plans its system on the basis of a 15 percent reserve margin for reliability purposes. (Rosen, TR. Vol. XXIII, p. 6602-6603).

Dr. Rosen concluded that certain important features of the MOKAN Power Pool and the Wolf Creek co-owners systems tend to situate the companies at the low end of the 15 to 20 percent reserve requirement range because the systems tend to have greater or equal levels of reliability at lower levels of reserves. (Rosen, TR. Vol. XXIII, p. 6610). Among the features cited by Dr. Rosen are the following:

> The MOKAN Power Pool has an annual load factor of about 49 percent. This is much lower than the national average load factor of about 61 percent . . . All three co-owners have load factors at or below 50 percent . . . These utilities are sharply peaking in the summer. This circumstance provides substantial scope for scheduling maintenance during periods when reliability is high. The consequence of this is that very few hours during the year are likely to contribute to the loss of load probability and the peaking facilities and load management technologies are more likely to be cost-effective options for maintaining reliable service than in more typical systems. (Rosen, TR. Vol. XXIII, p. 6610).

* * * * *

> The MOKAN Power Pool also has a reliability advantage, as compared with many other systems, deriving from the absence, thus far, of nuclear generating facilities in the resource mix. About 70 percent of installed capacity is coal-fired, the rest being dual-fuel steam turbines and peaking facilities. Moreover, the system is dominated by a large number of relatively small generating units. (Rosen, TR. Vol. XXIII, p. 6611).
>
> * * * * *
>
> Finally, the MOKAN Pool is well situated geographically for bulk power support. As part of the Southwest Power Pool or SPP (actually not a pool but a NERC regional reliability council) MOKAN has transmission links to the Oklahoma systems, via 345 KV networks in central and eastern Oklahoma and Kansas, and via a 230 KV tie in western Kansas and the Oklahoma-Texas Panhandle region. Interties to other regional reliability councils, directly to MAPP to its north and MAIN to its east, and indirectly to others, affords the MOKAN system substantial emergency support to maintain reliable service in the event of unusual generation outages and/or load surges. Simultaneous import capability (i.e., transmission system transfer limits into MOKAN) has been estimated at above 3000 MW. (Rosen, TR. Vol. XXIII, p. 6611-6612).

Based upon the evidence in these dockets, the Commission finds that a 15 to 20 percent reserve margin is adequate for KG&E system reliability and that, due to the commercial operation of Wolf Creek, a margin at the top of the range found adequate for system reliability should be implemented for ratemaking purposes. The Commission finds that a reserve in excess of 20 percent should be justified from an economic perspective. The Commission has found in Section VI of this order, *infra*,

that Wolf Creek capacity is not fully cost justified in relation to alternative generation resources at this time.

9. Having determined that a 1990 forecasted reference year should be used to determine peak responsibility on the KG&E system, a 1990 forecasted reference year must necessarily also be used to analyze available system capacity. Both Exhibit G-KG&E-41 (JRL-4) and Exhibit G-Staff-127 (RAR 4.2) indicate that KG&E's available capacity in 1990 will be 2,595 megawatts. Additionally, both Exhibit G-KGE-41 (JRL-4) and Exhibit G-Staff-127 (RAR-4.2) assume that Wolf Creek will be rated at a net capacity of 1117 megawatts in accordance with the testimony of KG&E witness Lucas. (Lucas, TR. Vol. XII, p. 3104). Dr. Sturgeon testified that he understood KG&E had announced the retirement of its Neosho and Ripley facilities (Sturgeon, TR. Vol. XXVI, p. 7693). Based solely upon Dr. Sturgeon's comment, KG&E argued in its brief that its system capability should reflect the retirement of Ripley and the mothballing of Neosho (KG&E Brief, p. V-6) resulting in a 1990 system capability of 2,436 megawatts. KG&E's argument appears to be merely an afterthought which is unsupported by its own application for rate relief. KG&E has not presented evidence in this proceeding concerning the prudence of retiring Ripley or mothballing Neosho. KG&E's generation planning witness testified only that:

> Fourth, Wolf Creek's commercial service, combined with the potential to reduce the amount of on-line generation required at all times in the Wichita area, *may* permit KG&E to retire those older gas units which can no longer be economically maintained. This would reduce O&M expenses. (Lucas, TR. Vol. XII, p. 3110). (Emphasis added).

Additionally, KG&E's rate application appears to seek recovery of costs attributable to the continued operation of the Ripley and Neosho plants. Exhibit G-KG&E-41

(JRL-2) is entitled "KG&E's Power Plants and Operating Characteristics." The sum of the column representing the KG&E share of total generating facility capability indicates a KG&E generating capability of 2,084 megawatts which includes both the Ripley and Neosho facilities. That figure corresponds with the 1984 actual KG&E generating capability of 2,084 megawatts from which the KG&E total system capability of 2,099 megawatts shown on KG&E's Load and Capability Forecast is derived. [Exhibit G-KG&E-41 (JRL-4)]. With reference to Exhibit G-KG&E-41 (JRL-4), KG&E's total system capability forecast increases to 2,595 megawatts by 1988, however neither the Ripley nor Neosho facilities appear to have been removed from the generating capability column which remains constant from 1984 through 1993 except for the addition of Wolf Creek capacity in 1985. Because KG&E belatedly argues only that the Neosho facility will be mothballed as opposed to retired, the Commission must find in light of the only substantial competent evidence of record that the Neosho facility is available for use. The only evidence in the record supporting the assertion in KG&E's brief that the Ripley facility will be retired is the statement of Dr. Sturgeon that he understood KG&E had announced the retirement of Ripley. (Sturgeon, TR. Vol. XXVI, p. 7693). The Commission finds that a full evidentiary hearing is necessary to determine the efficiency or prudence of the retirement of the Ripley facility in accordance with K.S.A. 1984 Supp. 66-128 and directs KG&E to file an application initiating such a review at its earliest opportunity. Within the context of the Ripley evidentiary hearing, the Commission will determine the degree to which the revenue requirement approved herein contains operating and maintenance expense and other expenses attributable to the Ripley facility. In the interim, the Commission finds that one-half of the MOKAN accredited capacity of the Ripley facility (46 megawatts) shall be deemed available for use. [*See* Exhibit G-KGE-41 (JRL-

2)]. The Commission finds that an order pursuant to K.S.A. 1984 Supp. 66-128 concerning the prudence or efficiency of retirement of the Ripley facility should be issued prior to the conclusion of the permanent Wolf Creek rate proceedings. The level of revenue presently being deferred by this order, as well as the carrying cost on those deferred revenues, will be modified prospectively from the date of an order in the Ripley facility evidentiary hearing to reflect the appropriate treatment of Ripley capacity. The Commission further finds that capacity available for use by KG&E shall be computed by reducing forecasted year 1990 available capacity of 2,595 megawatts [Exhibit G-KGE-41 (JRL-4) and Exhibit G-Staff-127 (RAR-4.2)] by one-half (or 46 megawatts) of the accredited capacity of the Ripley facility [Exhibit G-KGE-41 (JRL-2)] for a total of 2549 megawatts of available capacity.

10. The Commission finds that 327 megawatts of KG&E's interest in Wolf Creek are not required to be used in its services to the public within the State of Kansas. That figure is computed as indicated below:

Available Capacity (megawatts)		2,549
Peak Responsibility in 1990 Reference Year (megawatts)	1,852	
Reserve Requirement		
Percentage of Peak	x .20	
Megawatts	370	
Peak plus Reserve (megawatts)		2,222
Capacity in Excess of Peak Plus Reserve (megawatts)		327

11. The Commission finds that the portion of Wolf Creek found not "required to be used" by KG&E in its services to the public within the State of Kansas in paragraph 10 above shall be ineligible to earn a return on investment in accordance with the terms of K.S.A. 1984 Supp. 66-128c which provides that:

> The state corporation commission, in determining the reasonable value of property under K.S.A. 66-128, and amendments thereto, shall have the power to evaluate the efficiency or prudence of acquisition, construction or operating practices of that utility. In the event the state corporation commission determines that a portion of the costs of acquisition, construction or operation were incurred due in whole or in part to a lack of efficiency or prudence, or were incurred in the acquisition or construction of excess capacity, it shall have the power and authority to exclude all or a portion of those costs from the revenue requested by the utility.

12. The evidence is conflicting as to whether KG&E's need for capacity, or lack thereof, influenced its decision to construct and continue investment in Wolf Creek. In 1981, KG&E responded to a shareholder proposal to halt Wolf Creek construction by stating, *inter alia*, that "studies indicate the Company will not have adequate capacity to meet customers' needs and maintain required reserves later in the 1980s if the Wolf Creek unit is not brought on line." (Exhibit G-staff-38). Yet KG&E witnesses Cadman and Roen and the KG&E Brief have indicated that the decision to construct Wolf Creek and continue investment on a year-to-year basis was *not* based upon a need for capacity but rather was based primarily upon a concern about fuel availability. (Cadman, TR. Vol. X, p. 2768; Roen, TR. Vol. VI, p. 1498; KG&E Brief, p. III-3-26). Regardless of whether the need for capacity influenced KG&E's Wolf Creek generation planning, there appears no dispute that from an early 1970's perspective, diversification of KG&E fuel sources was an important generation planning consideration. Dr. Rosen agreed that fuel diversification was an appropriate goal for KG&E generation planning at that time. (Rosen, TR. Vol. XXIII, p. 6563, 6746). In May 1967 Cities Service Gas Company informed KG&E "that any new long-term gas contracts would be interruptible, and that long-term pric-

ing could not be fixed in advance." [Exhibit G-KGE-21 (GIR-1) p. IV-57]. At that time and until 1973, KG&E relied exclusively on natural gas and fuel oil as generation fuels. [Exhibit G-KGE-21 (GIR-1) p. IV-56]. The uncertainty of natural gas availability and price stability increased as time passed and became a predominant factor in KG&E's generation planning by the mid-1970s. [Exhibit G-KGE-21 (GIR-1) p. 43]. KG&E diversified its fuel sources by participation in the Jeffrey Energy Center and LaCygne coal units. (Cadman, TR. Vol. XI, p. 2999-3000). LaCygne Unit No. 1 became commercially operable in June 1973; LaCygne Unit No. 2 in May 1977; JEC Unit No. 1 in July 1978; JEC Unit No. 2 in May 1980; and JEC Unit No. 3 in May 1983. [Exhibit G-KGE-21 (GIR-1), p. IV-17]. Reserving comment for other paragraphs of this Order as to whether Wolf Creek was the correct size of unit for the KG&E system or whether a nuclear facility was the correct type of unit for the KG&E system, it does however, appear, and the Commission finds, that from an early to mid-1970's perspective, legitimate concerns about gas and oil fuel availability reasonably and appropriately prompted the construction by KG&E of additional generating facilities. The Commission has found at Paragraph 3 of this Section, *supra*, that Wolf Creek will be "used" by KG&E in its services to the public within the State of Kansas as that term is contemplated by K.S.A. 1984 Supp. 66-128. For that reason, the Commission finds that KG&E is entitled to a return of (through depreciation on) its investment in the 327 megawatts of Wolf Creek found to be excess in paragraph 10 above.

VI. *ECONOMICS OF WOLF CREEK*

A. *INTRODUCTION*

1. The Commission has determined above that certain construction costs of Wolf Creek were imprudently and inefficiently incurred and should not be included in rate

base and that a further portion of the plant represents physical excess capacity not currently used and required to be used. The remaining issue for determination is the reasonable value of that portion of Wolf Creek which is reasonably necessary to provide service. This essential question was hotly disputed by the parties. We will not attempt to summarize all the voluminous evidence on this issue but will mention a few of the arguments.

2. Staff witness Rosen presented extensive evidence supporting staff's economic analysis. Dr. Rosen basically argued that an evaluation of physical excess capacity is inadequate in itself to determine whether a new capacity addition imposes unnecessarily high penalties on ratepayers. Staff contends that an economic evaluation is necessary to supplement the engineering evaluation of excess capacity. Dr. Rosen performed such an economic evalaution by comparing the revenue requirements resulting from inclusion of Wolf Creek in rate base with a more optimal alternative in which gas turbines and eventually coal fired generation was added. Dr. Rosen's analysis showed that in 1984 dollars, KG&E ratepayers face $1.62 billion more in revenue requirements with Wolf Creek than his alternative, while KCPL ratepayers face a cumulative "net loss" of $1.73 billion. Dr. Rosen also concluded that about 85% of these economic penalties occur in the first ten years of Wolf Creek's operation. He further found that the net losses approximately equaled the capital costs, i.e. depreciation and return, of Wolf Creek.

3. Dr. Rosen also performed a retrospective analysis examining the results of cancellation of the plant in 1981. He concluded that, based on information then available, the continuation of the project would have been seen to result in $500 million more in revenue requirements (1984 present value) than cancellation with recovery and return on the sunk construction costs. Approximately one-half of the current economic loss is con-

sequently ascribed to the continuation of the project after 1981. Based on these findings, Dr. Rosen recommended that the total economic loss resulting from continuation of the project after 1981 be accepted by the companies. The remainder, representing basically the sunk costs at the end of 1981, he proposed to split between the ratepayers and the companies.

4. ALERT's witness, Dr. Komanoff, performed a similar analysis applicable to KG&E only. He concluded that based on evidence available in 1979, KG&E should have realized that Wolf Creek would have resulted in a net economic loss to ratepayers of $750 million, and should have cancelled the plant. He recommended that only 7% of the plant be included in rate base.

5. Dr. Sturgeon, on behalf of intervenor Electric Shock Coalition, testified that both KG&E and KCPL have more than adequate base load capacity. Even if there were a supply short fall, Dr. Sturgeon argued that the proper way of meeting demand is to add peaking plants by off-system power. If Wolf Creek were less expensive than the baseload plants being displaced, it would qualify for rate base treatment, but such a showing is not likely in Dr. Sturgeon's view. He therefore recommended no inclusion of Wolf Creek in rate base.

6. Witnesses testified on behalf of the Hospital and Industrial Intervenors that Wolf Creek represents substantial excess capacity at an extremely high cost. They recommended that shareholders should bear a portion of the costs with the remainder to be phased-in over a seven year period.

7. Applicant contends that the economic evaluation proposals of staff witness Rosen and ALERT witness Komanoff should not be adopted for several reasons. First, it argues that the Commission has traditionally valued rate base additions at original historic cost and that deviation from that practice after the fact is in-

equitable and requires advance notice. Furthermore, the company suggests that adoption of a fair value approach by the Commission would have to be applied to all facilities of a utility and not just a new facility. Applicant contends that the analysis performed by Dr. Rosen was too speculative, required thousands of assumptions and was an exercise in hindsight using a "perfection standard".

B. *DISCUSSION*

1. The Commission has concluded that an economic valuation of the Wolf Creek facility is a desirable approach in this case. As more fully discussed below, we believe that the reasonable value of the portion of that facility which is to earn a return is something less than its cost of construction. This approach is not only necessary to ensure reasonable rates but also is required by the statutory provisions enacted by the 1984 Legislature in House Bill 2927.

2. The Commission is persuaded by the arguments of several parties that Wolf Creek represents not only physical excess capacity in that much of the plant's capacity is not currently needed but also economic excess in that the capacity that is required is too expensive and uneconomical. As Dr. Rosen testified:

> The broader economic issue of excess physical capacity involves a determination of whether an excess of *certain types* of generating capacity exists (e.g., too much base load relative to cycling and peaking). Such a circumstance would result in costs of supplying power that are unreasonably high relative to a system with an economically optimal mix of types of generating capacity. Thus, excess capacity of one type of capacity could exist, even if in the aggregate there is no excess capacity with respect to system reserve requirements for adequate reliability. Additionally, poor economics for new generating units can

> arise from other factors, including excessively high capital costs and/or the emergence of economically advantageous resource alternatives. The net result of any or some combination of the above factors can be to render a new capacity addition, which may have *initially* been justified, uneconomically under current and expected conditions. (Rosen, TR. Vol. XXIII, p. 6587-6788).

The Commission believes that the type of long term life-cycle economic analysis performed by Dr. Rosen is very beneficial. Indeed, even Applicant appears to concede that this type of analysis is a useful tool for generation planning purposes. Obviously, the overall long-term benefits and costs of a major construction project are essential considerations for not only utility companies but also regulatory commissions. We conclude, however, that we cannot rely on Dr. Rosen's type of analysis to determine the precise valuation of Wolf Creek in this case.

3. As vigorously stated by applicant, the Rosen analysis requires projections into the future of many factors affecting the relative economics of various alternatives. For instance, capacity factors, variable O&M costs, capital additions, replacement power costs, and decommissioning costs were all subjects of extensive debate during the testimony of numerous witnesses. The Commission does believe that, overall, Dr. Rosen's assumptions for these various inputs into the analysis were more reasonable and realistic than applicants' witnesses. If nothing else, his figures had the virtue of consistency whereas the company witnesses seemed to have made no effort to coordinate their various assumptions, perhaps the most egregious example being the projected cost of capital additions necessary for Wolf Creek. The company witnesses presented testimony predicting such costs which ranged from $10 million to $81 million annually. Although we therefore believe that Dr. Rosen's conclusions are good indications of the overall economics of Wolf Creek, we are

reluctant to base a precise valuation of the plant on those results. We have concluded instead that a more near-term approach requiring fewer projections should be used, as set forth below.

4. The Commission is not persuaded, moreover, by the applicant's argument that a "fair value" valuation of Wolf Creek is inequitable. First, and perhaps most important, the Kansas Legislature has appeared to require examination of the economics of a rate base addition. Under the provisions of K.S.A. 1984 Supp. 66-128g(a) the Commission must consider a number of factors in determining prudence and the reasonable value of electric generating property. Those factors include:

(1) A comparison of existing rates of the utility with rates that would result if the entire cost of the facility were included in the rate base for that utility;

(2) a comparison of the rates of any other utility in the state which has no ownership interest in the facility under consideration with the rates that would result if the entire cost of the facility were included in the rate base;

(5) the ability of the owners of the facility under consideration to sell on the competitive wholesale or other market electrical power generated by such facility if the rates for such power were determined by inclusion of the entire cost of the facility in the rate base;

(8) inappropriate or poor management decisions in construction or operation of the facility being considered;

(9) whether inclusion of all or any part of the cost of construction of the facility under consideration, and the resulting rates of the utility therefrom, would have an adverse economic impact upon the people of Kansas;

(10) whether the utility acted in the general public interest in management decisions in the acquisition, construction or operation of the facility;

(11) whether the utility accepted risks in the construction of the facility which were inappropriate to the general public interest of Kansas;

(12) any other fact, factor or relationship which may indicate prudence or lack thereof as that term is commonly used.

This statutory mandate compels consideration of the economics of a plant in determining the reasonable value of a rate base addition and also provides notice to the utilities of the general standards to be used. Further, as discussed more subsequently, we do not believe that use of an economic valuation approach is required for all utility plants as suggested by applicant.

5. In considering the appropriate valuation for Wolf Creek, the Commission believes that the appropriate factors may be grouped into several salient sets of facts: The applicant's decisions to initiate and continue construction of a nuclear generating facility; the economic costs to ratepayers and the company of the resulting rates; and the risks assumed by the company and shareholders.

Decisions to Build and Continue

1. Applicant KG&E, as noted above, based its decision to undertake construction of a nuclear generating facility on the perceived need to achieve fuel diversity. KG&E, reliant on gas-fired generation in the late 1960's, began examining coal and nuclear generation in its planning in view of apparent impending shortages of natural gas for use in generation facilities. The 1978 Federal Fuel Use Act confirmed the natural gas shortage by restricting use after 1989 to peaking units (those operating less than 1,700 hours per year.) KG&E contends that even though the Fuel Use Act was amended in 1981 to remove re-

strictions on existing generation plants, it still is obligated to reduce its dependence on natural gas by 50%. Further, KG&E argues that although use of coal is now encouraged by national energy policy, concerns about "acid rain", increased coal transportation costs due to railroad deregulation and the possibility of a coal mine strike pose risks to heavy reliance on coal. Applicant KCPL contends that it also based its decision to build a nuclear facility on the perceived need to achieve fuel diversity. Heavily reliant on coal generation, the company was concerned about possible escalating costs for coal, supply disruptions and environmental difficulties. The company also was aware of the increasing scarcity of oil and natural gas.

2. Staff witness Rosen did not dispute the prudence of the companies' initial decision to build a nuclear plant. However, he contended that the companies had an obligation, in view of the magnitude of the Wolf Creek project and the economic risk involved, to engage in regular reviews to determine if continuation was a prudent policy. He concluded that the companies' planning exercises were too infrequent and deficient in both design and execution.

3. KG&E witness Roen testified that between 1968 and the date of the filing of KG&E's rate case in these dockets, no outside consultants prepared for KG&E an independent, ~~economic~~ life cycle coal-versus-nuclear cost analysis. (Roen, TR. Vol. VI, p. 1646).

4. An analysis was performed for KG&E by Ebasco Services, Inc. in February 1971 favoring participation in construction of two large nuclear units (1,100 MW each) to come on-line in 1978 and 1980. (Rosen, TR. Vol. XXIII, p. 6568).

5. KG&E witness Roen testified that KG&E staff prepared internal-coal versus nuclear cost comparisons in 1973, 1975, 1976, 1978, 1979 and 1980. (Roen, TR. Vol.

VI, p. 1646). (Exhibits G-Staff-22 through 27). Mr. Roen indicated that KG&E's 1973 study (Exhibit G-Staff-22) was "probably not" state-of-the-art but characterized the 1975 studies (Exhibits G-Staff-23 and 24) as a "good piece of work." (Roen, TR. Vol. VI, p. 1686). KG&E's 1976 economic cost-benefit study of Wolf Creek compared to alternatives consisted of a one page levelized bus bar energy bar chart for a 10 year period of analysis (Roen, TR. Vol. VI, p. 1690, Exhibit G-Staff-25) which, by definition, was not a life cycle economic cost analysis for either the nuclear or coal facilities analyzed. (Roen, TR. Vol. VI, p. 1691). Among other weaknesses, the 1976 analysis assumed it would cost as much to operate and maintain a coal plant as it did to operate and maintain a nuclear plant (Roen, TR. Vol. VI, p. 1694), assumed the capacity factor for a nuclear plant would exceed the capacity factor for a coal plant (Roen, TR. Vol. VI, p. 1698), ignored capital additions and decommissioning expense for the nuclear facility (Roen, TR. Vol. VI, p. 1697, 1703) and did not address the need for capacity. (Roen, TR. Vol. VI, p. 1705). The scope of KG&E's 1978, 1979 and 1980 "economic" cost benefit analyses of the coal-versus-nuclear options (Exhibits G-Staff-26, 27 and 28) and most of the assumptions found therein are the same or similar to the company's 1976 analysis described above. (Exhibit G-Staff-24). (Roen, TR. Vol. VI, p. 1705 through TR. Vol. VII, p. 1765). During the cross-examination testimony of KG&E witness Lucas, the witness indicated that analyses of Wolf Creek economics were prepared by KG&E employing a longer than ten year planning horizon, but that documentation of such analyses were unavailable:

> As I indicated earlier, this is one—that was one of several things that we looked at, and it may have been on the back of an envelope, but it was very definitely done; and in those days, you didn't keep all of the envelopes that you worked on. (Lucas, TR. Vol. XII, p. 3176).

It is interesting to note that KG&E's 1980 ten-year levelized bus bar energy cost comparison found a coal facility to be more economical than a nuclear facility (Roen, TR. Vol. VII, p. 1733) and that thereafter KG&E discontinued preparation of what had become an annual one-page analysis.

6. In May of 1980, Ebasco Services, Inc. submitted to KG&E a review and critique of the KG&E nuclear-versus-coal studies. At that time, the construction of the Wolf Creek generating station was well underway. The 1980 Ebasco study endorsed the earlier KG&E findings favoring the economics of the nuclear project. In terms of the initial decision, the report stated:

> KG&E's 1973 decision to proceed with a nuclear project was reasonable from an economic viewpoint as indicated in KGE-1, *Generator Addition Study (Early Eighties Coal vs. Nuclear)*, 1973.

With respect to the subsequent analyses, the 1980 report stated:

> . . . it is Ebasco's conclusion that a complete and realistic comparison made after 1973 of alternatives to the Wolf Creek Generating Station Unit 1 will indicate a significant economic advantage in favor of WCGS1.

(Rosen, TR. Vol. XXIII, p. 6568-6569).

7. A 1981 study was completed for the entire MOKAN power pool by Gilbert/Commonwealth, Inc. While there are certain cost comparisons of various planning scenarios, the study did not analyze the economics of the then current generation plans of the member utilities. The Gilbert/Commonwealth analysis was concerned with longer range generation planning strategies and assumed the projected completion dates for plants already planned. (Rosen, TR. Vol. XXIII, p. 6570).

8. According to Dr. Rosen, KCPL appears to have been highly reliant on the analyses performed by KG&E concerning the relative economics of nuclear power units and of Wolf Creek specifically. (Rosen, TR. Vol. XXIII, pp. 6574-6575). Mr. McPhee referenced a number of economic comparison studies in his testimony which purported to demonstrate the economic superiority of Wolf Creek over coal-fired or other types of generation. Mr. McPhee cited a 1971 study entitled "Generation Expansion Study After LaCygne 1." (McPhee, TR. Vol. XIV, p. 3838). The study covered only a 10 year time period from 1975-1985 (McPhee, TR. Vol. XIV, p. 3980) and recommended a plan which included 550 MW of combustion turbine power, 100 MW of purchased power, and 300 MW of nuclear power. (McPhee, TR. Vol. XIV, p. 3982). The 1971 report omitted information concerning the assumptions used to calculate decommissioning costs, nuclear spent fuel handling, storage, transportation, disposal costs and capital additions. The study failed to address the need for capacity. (McPhee, TR. Vol. XIV, p. 3993). KCPL did not follow the generation plan recommended by the study (McPhee, TR. Vol. VIX, pp. 3982-86). The study incorporated analysis of Wolf Creek over only the first five to six years of its operation. (McPhee, TR. Vol. XIV, p. 3986). The 1971 report did not compare the relative economic costs of a single nuclear unit to a single coal unit with all other generation planning factors remaining equal. (McPhee, TR. Vol. XIV, p. 3986).

9. Mr. McPhee's prefiled testimony (McPhee, TR. Vol. XIV, p. 3839) made reference to a KCPL nuclear-versus-coal study prepared in 1974. Unfortunately, this study also suffers from a limited time frame of analysis (1982-1992) and a dearth of information on underlying assumptions. Mr. McPhee admitted, on cross-examination, that at any nuclear capacity factor less than 70 percent, a coal plant was shown to be economically superior to a nuclear plant. (McPhee, TR. Vol. XIV, p. 3995).

10. Exhibit G-Staff-56 is a KCPL generation expansion study dated April, 1975. The study covered only the first 15 years of the expected life of Wolf Creek. (McPhee, TR. Vol. XIV, pp. 4017-18). The study did not compare the relative economic costs of a single nuclear unit to a single coal unit with all other generation planning factors remaining equal. (McPhee, TR. Vol. XIV, p. 4018). The study concluded the most desirable planning option was one which provided for Wolf Creek nuclear power in 1982, reduction of the current capital budget requirements by deferring Iatan from 1980 to 1985 and installation of gas turbines. (McPhee, TR. Vol. XIV, p. 4020). This, once again, was a recommendation which KCPL chose not to adopt. (McPhee, TR. Vol. XIV, 4021). In fact, Mr. McPhee testified during cross-examination that the actual generation plan KCPL chose was the next to highest cost option studied. (McPhee, TR. Vol. XIV, p. 4022).

11. Exhibit G-Staff-201 is a KCPL levelized bus bar energy cost comparison of the Wolf Creek and Iatan facilities prepared in May 1980 for the study period 1983 through 2012. (Evans, TR. Vol. XXXVIII, p. 11296). Units of different sizes were being compared (Evans, TR. Vol. XXXVIII, p. 11297). Operating and maintenance costs were assumed to be higher for a coal plant than for a nuclear plant. (Evans, TR. Vol. XXVIII, p. 11297). The capacity factor of the nuclear plant was assumed to equal the capacity factor of the coal plant. (Evans, TR. Vol. XXVIII, p. 11297). Capital additions for the nuclear and coal facilities were not analyzed. (Evans, TR. Vol. XXXVIII, p. 11300). Decommissioning expense and nuclear spent fuel handling, storage, transportation and disposal cost assumptions were not stated. (Evans, TR. Vol. XXXVIII, pp. 11300-11301). The analysis did not attempt to determine the most economic size of unit for the KCPL system given the need for capacity at the time. (Evans, TR. Vol. XXXVIII, p. 11301). The conclusion of the analysis that the levelized bus bar en-

ergy cost of Iatan would be greater than Wolf Creek resulted "principally because of the shorter book life." (Evans, TR. Vol. XXXVIII, p. 11302).

12. By 1976, KEPCo had begun an investigation of various power supply options with the objective of allowing the cooperative to become an owner of generating facilities and a transmitter of electrical power. In addition to investigating participation in such coal-fired plants as the Jeffrey Energy Center and Iatan, KEPCo engaged a consultant to conduct a feasibility study of KEPCo's participation in Wolf Creek. A preliminary feasibility study completed in early 1977 indicated the desirability of KEPCo becoming involved in the construction of Wolf Creek, suggesting a 17 percent ownership share of the plant. However, the report did not include a comparison of alternative power supply scenarios. Rather, it compared the costs of electricity to the cooperatives over time (including Wolf Creek power availability) with and without KEPCo acting on their behalf as a direct participant in the Wolf Creek project. Another weakness in the analysis was that the demand projections employed were out-of-date because of reliance on a 1973 Power Requirements Study. (Rosen, TR. Vol. XXIII, p. 6577).

13. KEPCo witness Mulholland agreed that Schedule 2, Section 2, Volume 1, of the March 1977 report (Exhibit C-Staff-22) concluded that cooperatives in the KG&E service area would sustain an $8,000,000 loss by associating with KEPCo if KEPCo was a co-owner in Wolf Creek. (Mulholland, TR. Vol. C-3, p. 789). He further conceded that 43 of the total 67 megawatts of Wolf Creek power available to KEPCo would be used in the KG&E service area and that the report indicated that the KG&E area would be the worst area to use Wolf Creek power. (Mulholland, TR. Vol. C-3, p. 789). Mr. Mulholland admitted that the report showed that substantial economic losses would result from use of the Wolf Creek power in the KG&E service area. (Mulholland, TR. Vol. C-3, p.

790). Mr. Mulholland testified that the 1977 study assumed that KG&E, KPL, and CTU would all incur and pass on to KEPCo increased costs from the acquisition of substantial additional generating facilities. For planning purposes, KG&E was deemed to acquire *four* nuclear power plants and an additional combustion turbine, as well as its interest in four Jeffrey units and LaCygne No. 2 by 1994. (Mulholland, TR. Vol. C-3, p. 792). Kansas Power & Light was scheduled to acquire interest in four Jeffrey units, two nuclear units, (one in 1988 at 700 MW and one in 1992 at 900 MW) and two additional combustion turbines by 1995. (Mulholland, TR. Vol. C-3, p. 793). CTU was scheduled to acquire an interest in four Jeffrey units, an interest in four nuclear units, an interest in three combustion turbines by 1991, and an interest in a coal plant by 1993. (Mulholland, TR. Vol. C-3, p. 794). That the additional capital costs and operating and maintenance costs from all of these new generating facilities would raise the power production costs of those utilities and result in higher wholesale prices for power they sell is obvious.

14. At the time the KEPCo studies were prepared, KG&E, according to other testimony filed in this proceeding, was aware that it would not need all of the power from Wolf Creek to meet demand. It had filed reports with MOKAN showing a capacity balance above and beyond peak plus a 15 percent reserve margin of 377 megawatts upon commercial operation of Wolf Creek. However, Mr. Mulholland testified that the data used by KEPCo consultants would not have reflected the most recent information, because:

> They [KG&E or MOKAN] were not cooperative in giving us information. We had to get it from every source, clandestine or otherwise, that we could. (TR. Vol. C-3, p. 799).

He further testified concerning the data that KEPCo consultants used:

It was probably based on 1975 or no later than 1976 MOKAN pool load and capacity projections. We took that data because it was the best information that we had available about KG&E. (TR. Vol. C-3, p. 799).

15. In March 1979 KEPCo entered into a preliminary agreement for 17 percent ownership of the Wolf Creek Generating Station. Another feasibility study of Wolf Creek prepared by KEPCo consultants became available at that time with a similar analytic approach. Again, the issue addressed was whether costs would be higher with or without KEPCo ownership in Wolf Creek combined with the purchase of 90 MW of Southwestern Power Administration (SWPA) hydroelectric power. Economic impacts were provided assuming uniform rates for all cooperative members and assuming rates which varied with the member cooperatives. (Rosen, TR. Vol. XXIII, p. 6578). In reviewing the 1979 study (Exhibit C-Staff-24), Mr. Mulholland conceded that similar assumptions were used concerning the addition of generating facilities to the KG&E system, the KPL system, and the CTU system. (Mulholland, TR. Vol. C-3, pp. 821-825). For instance, the 1979 consultant study assumed a KG&E capacity plant calling for a 136 MW interest in each of Jeffrey Units 1 through 4, a 477 MW interest in Wolf Creek, a 477 MW interest in a 1990 nuclear unit, a 110 MW interest in each of four coal units in 1987, 1989, 1993, and 1995 and a 100 MW interest in a combustion turbine in 1994. (Mulholland, TR. Vol. C-3, p. 822-823). The 1980 study (Exhibit C-Staff-25) also assumed unrealistic capacity additions for the KG&E system (Mulholland, TR. Vol. C-3, pp. 828-829), calling for a 136 MW interest in each of the Jeffrey Units 1 through 4, a 477 MW interest in Wolf Creek, a 477 MW interest in a 1990 nuclear unit, an 85 MW interest in each of 4 coal units in 1987, 1989, 1993 and 1995, and a 75 MW interest in a combustion turbine in 1994.

16. Volume III, Section C, of the March 1977 KEPCo consultant study (Exhibit C-Staff-23) used extremely questionable assumptions regarding the capacity factors to be expected from generating facilities of investor-owned utilities thereby biasing the result in favor of Wolf Creek ownership. Mr. Mulholland testified that the capacity factor for LaCygne No. 1 was assumed to be 65 percent in 1984 and inexplicably dropped to 25 percent by 1994. For LaCygne No. 2 the capacity factor for 1984 was 9.5 percent, in 1987 it was 2 to 3 percent and in 1990 it was 0 percent. (Mulholland, TR. Vol. C-3, pp. 801-830). Similar reductions appear in the capacity factors for the Jeffrey units. Mr. Mulholland testified that the capacity factor shown for Jeffrey 1 in 1984 was 60 percent and for 1994 was 13 percent; for Jeffrey 2 in 1984 it was 45 percent and for 1994 it was 10.5 percent; for Jeffrey 3 in 1984 it was 31 percent and for 1994 it was 5 percent. But for Wolf Creek, Mr. Mulholland conceded that the study assumed a capacity factor of 75 percent in 1984 and 80 percent in 1994. Mr. Mulholland contended that the adjustments in capacity factors reflected the real world dispatch of the units that would occur in light of excess capacity, but he did indicate that a lower capacity factor for Wolf Creek would increase the costs of the plant for both KG&E and KEPCo. (Mulholland, TR. Vol. C-3, pp. 803-808). Mr. Mulholland admitted that when production of major coal units is reduced to the extent assumed by KEPCo consultants, there appears to be excess capacity and that he didn't remember the capacity factors used in the studies were so low. He also testified that bringing a new base load plant on line and shutting down all the other base load plants represents a sizable economic loss to the ratepayer. (Mulholland, TR. Vol. C-3, pp. 808-811).

17. The studies performed by KEPCo consultants in 1979 and 1980, Exhibits C-Staff-24 and 25, respectively, used assumptions for capacity factors that reflect significant reductions (although not as drastic as appeared in

the 1977 study) for the base load coal units of each utility. The capacity factors for Wolf Creek in those years were shown to average from 73.5 to 74.8 percent. (Mulholland, TR. Vol. C-3, pp. 825-826; 838-840). Mr. Mulholland contended that even though an economic loss accrues to the ratepayer from having major base load coal facilities run at a small percentage of their available capacity, the best thing to do at that point is to minimize generating costs by backing down all other baseload plants. (Mulholland, TR. Vol. C-3, pp. 840-841). Mr. Mulholland testified that the economic loss associated with reduction of existing base load plant capacity factors should be taken into account when deciding whether to construct a baseload nuclear unit. (TR. Vol. C-3, p. 842).

18. At the request of the Rural Electrification Administration and to further evaluate the feasibility of KEPCo's participation in Wolf Creek, Mr. Mulholland specified Wolf Creek cost-related criteria in an August 24, 1981, memo which were to be met by KEPCo (Exhibit C-Staff-29). Those criteria were:

1) The KEPCo program should be in a loss situation for no more than four years,

2) The maximum losses that should be sustained in any one year should not exceed one-half cent per kilowatt hour,

3) The losses during the early years of KEPCo's development should not average more than a third of a cent per kilowatt hour. (TR. Vol. C-3, p. 870).

Notwithstanding those criteria, he then indicated that (1) KEPCo currently was projecting losses for six years; (2) the maximum loss would be 2.5 cents per kwh (which Mr. Mulholland later corrected to .95 cents per kwh at page 924 of the transcript); and (3) the average losses during the early years would be 1.4 cents per kwh. (TR. Vol. C-3, p. 871-872). During cross-examination con-

cerning several charts attached to Exhibit C-Staff-29, Mr. Mulholland testified that (1) the maximum annual economic loss to KEPCo decreases with a decreasing interest in Wolf Creek (Mulholland, TR. Vol. C-3, p. 879); (2) KEPCo could minimize its loss by owning only 15 MW of Wolf Creek (Mulholland, TR. Vol. C-3, p. 880); (3) that the charts were favorably biased by including savings from the purchase of hydropower (Mulholland, TR. Vol. C-3, p. 888); (4) that if SPA power was not incorporated in the analysis, that Wolf Creek losses would appear even more dramatic (Mulholland, TR. Vol. C-3, p. 891); and (5) that KEPCo could reduce its losses by purchasing less than 5 percent of Wolf Creek (Mulholland, TR. Vol. C-3, p. 893).

19. A series of sensitivity analyses were prepared in May 1980 by KEPCo consultants. One of the variations involved criteria which altered the annual load growth rate from four percent to two percent. (Exhibit C-Staff-34). The result of that single alteration dropped the savings anticipated by KEPCo from use of hydropower and Wolf Creek ownership by $41 million. (Mulholland, TR. Vol. C-3, p. 909). Another of the sensitivities tested was to replace Wolf Creek ownership with participation in Iatan. (Mulholland, TR. Vol. C-3, p. 911). Mr. Mulholland verified that several assumptions of questionable value were used by KEPCo consultants: (1) The operation and maintenance cost for Iatan, a coal-fired plant, was assumed to be higher than that for Wolf Creek; and (2) the studies compared 13 years of costs of operation for Wolf Creek and 16 years of costs of operation for Iatan. (Mulholland, TR. Vol. C-3, p. 911-913). The results of that study indicated a savings resulting from participation in Iatan of $133 million. (Mulholland, TR. Vol. C-3, p. 914). Another 1980 sensitivity increased the cost of Wolf Creek to $1.8 billion. That analysis resulted in a reduction of savings from Wolf Creek and hydropower to $113 million, which is less than the savings ap-

parent if Iatan was purchased rather than Wolf Creek. (Mulholland, TR. Vol. C-3, p. 915).

20. Based upon the extensive record in the captioned dockets, the Commission finds reason to conclude with Dr. Rosen that each of the owners' Wolf Creek economic cost-benefit planning exercises were too infrequent and deficient in design and execution.

Economic Impact and Rate Comparisons

1. K.S.A. 1984 Supp. 66-128g(a)(9) requires consideration of whether resulting rates of a new facility in rate base "will have an adverse economic impact upon the people of Kansas." It is clear from the evidence presented that the rates resulting from total inclusion of Wolf Creek in rate base would be unreasonably high. KCPL states that a one time increase of 52 percent could be justified but has proposed a four year phase-in plan with a first year increase of $45.3 million, or 25 percent, with a cumulative increase over the base year rates of 64 percent. KG&E proposes a first year increase of $144.9 before fuel savings, a 39.4 percent increase, with a total increases over a five year phase-in period of 106 percent. Both companies have submitted the phase-in proposals in recognition of the fact that one time increases of 52 percent and 98 percent would be too large a burden on ratepayers. Numerous public witnesses in the non-technical public hearings not only confirmed the company's opinion that a one time increase was too heavy of a burden but also revealed strong opposition to the phase-in proposals and magnitude of the proposed first year increase.

2. KG&E also presented more detailed evidence concerning the rate impact of Wolf Creek through its witness Andrews of Cresap, McCormick and Paget (CMP). In Exhibit G-KGE-21, various comparisons of rates are made. Of particular interest to the Commission are the

comparisons of rates with and without Wolf Creek and the comparison of the proposed rates with other Kansas utilities' rates. With regard to the latter, Mr. Andrews compared the KG&E rates under its phase-in plan with Sunflower, Centel and KPL. The Sunflower rates assumed phase-in of the Holcomb plant and all three of the other utilities variable costs were escalated over time. The KG&E rates were shown to be significantly above KPL's and Centel's, especially at the end of the phase-in period, but below Sunflower's rates. Since we have found that a significant portion of Sunflower's Holcomb Plant represents excess capacity and have not accorded it full rate base treatment, the data contained in the exhibit is not totally accurate. Consequently it must be concluded from that exhibit that KG&E's rates would be significantly above average for Kansas utilities. Nor is it disputed that KG&E, with Wolf Creek, would move from having historically below average rates to above average rates on a national basis.

3. Regarding the with and without Wolf Creek comparisons, staff presented Exhibit G-Staff-35. This exhibit was based on the rates contained in the Andrew's exhibit and showed under those assumptions that Wolf Creek requires $1.4 billion more from ratepayers over its first nine years of service than would an alternative scenario of two coal-fired plants in 1989 and 1993. As staff notes in its brief, the latter scenario appears to recognize no need for additional capacity without Wolf Creek until 1989. These rate comparisons also confirm the observations of staff witness Rosen and other witnesses that the economic disadvantages caused by Wolf Creek are greatest in the early portions of its service life and that as the plant's high capital costs are depreciated, it becomes a relatively more economic source of energy.

4. Mr. Andrews also presented a section of the CMP report responding to K.S.A. 66-128g(a)(5) concerning the ability of the owners to sell wholesale power in the

competitive market. As staff observed in its brief, the recitation of the substantial and sustained but unsuccessful efforts to sell wholesale and participation power from WCGS indicates an inability up to the current time to compete in the wholesale market. The attempts to sell also, of course, reflect the owners' recognition of the substantial excess capacity represented by Wolf Creek.

5. Section A, Chapter V of the CMP Report concerns the economic impact of KG&E's proposed rates for residential, commercial and industrial users in the Wichita area. The CMP Report projects annual residential electrical service costs will remain a small portion of household income. With regard to the commercial sector, it is projected electric rates will grow only slightly as a percentage of gross sales. Similarly, the impact of the proposed rates is presented as a modest increase in gross sales and in KG&E's industrial consumers. The CMP Report concludes that the impact of the proposed rate increase will be cushioned by the projected growth in the economy and will remain a small proportion of household income and sales revenues.

6. The Commission is not convinced by the arguments set forth in the CMP Report. First of all, the CMP Report is best characterized as a market survey as opposed to an economic impact analysis. The analysis contained in the CMP Report is not, therefore, deemed as reliable as the analysis performed by other experts. Secondly, the growth projections contained in the CMP Report assume the Wichita economy will flourish during the period analyzed. It is only because the report assumes an 8.9 percent growth in the Wichita economy, and that residential income will more than double in the next ten years, that the conclusions of only a modest impact can be supported. The assumption of a flourishing Wichita economy is based on a less than sound assumption that the proposed rates will not have an adverse impact on the economy. The analysis contained in the CMP Report

projects an annual growth in residential disposable income of 9.2 percent. The result of an annual growth of 9.2 percent would bring median household disposable income in Wichita to nearly $70,000 per year within the next eight years. Only the most optimistic of forecasters could believe such growth will indeed occur. The growth projections contained in the CMP Report appear overly optimistic. The analysis contained in the CMP Report is limited to a small portion of the Kansas economy. The Wichita area economy is used as a surrogate for the KG&E service area. Little, if any, meaningful analysis of the impact on the agricultural sector is undertaken. Since farm income is currently depressed, the impact on the agricultural sector may be more severe than that projected on the CMP Report. Finally, no analysis is undertaken of the impact on those customers or economic entities which would not benefit from general economic growth. For example, residential consumers living on fixed incomes and governmental or quasi-governmental units whose budgets do not increase with general economic growth are not included in the analysis. These types of customers are components in the economic infrastructure of the KG&E service area and must be considered in any analysis of the economic impact of the proposed rate increase.

7. An economic impact study based upon an empirical investigation was offered into evidence by Mr. Gregory Palast, on behalf of the Alliance for Liveable Electric Rates. Mr. Palast's analysis quantifies the impact of the proposed rate increase on: Wichita area employment, manufacturing, the aircraft industry, commercial business, housing and household income, government tax revenues, street lighting and operations. In general terms, Mr. Palast is of the opinion the rate increase proposed by KG&E could not be implemented, even with an extended phase-in plan, without harming the Wichita economy. (Palast, TR. Vol. B-7, pp. 2272 and 2366).

8. Mr. Palast's conclusions were supported by the testimony of witnesses Allen, Ewy, and Weir-Enegren. Dr. Larry Langemeir also supported the conclusions of Mr. Palast with specific reference to the impact of icreased rates on the farm economy.

9. James Cobler presented testimony concerning the financial impact of the proposed rate increase upon agencies of the State of Kansas, which ultimately fall upon the citizens of Kansas. The transcripts from public hearings conducted throughout the KG&E service area are replete with testimony concerning the adverse economic impact that would result from a substantial increase in charges for electric service.

10. Intervenor Vulcan Materials Company also presented testimony by its Wichita plant manager, Mr. Boyd, who indicated that electricity was the largest single cost for the plant and that Vulcan could not sustain a doubling of rates in a five year period, as proposed. (TR. Vol. B-7, pp. 2454-55).

11. There is no doubt in the Commission's mind from the testimony presented that full inclusion of Wolf Creek in the rate base, even over a five year phase-in period, would have a significantly adverse impact on ratepayers and the economy of Kansas.

Risk Assumption and Sharing

1. Before turning to the third set of factors concerning risks accepted by the applicant, we should review the testimony concerning the proper role of regulation in determining rates. Dr. Sturgeon on behalf of the Electric Shock Coalition, testified that "one of the goals of public utility regulation is to create the same results within the regulated industry as would occur in a competitive market. In a competitive market, if a firm does not use the efficient alternatives, it must either exit the market or receive a lower than normal return." (TR. Vol. XXVI,

p. 1646). Mr. Drazen, on behalf of the Hospital and Industrial Intervenors, also testified that even without a showing of imprudence, shareholders should bear a portion of the cost of Wolf Creek since regulation is a surrogate for competition (Drazen, TR. B-4, pp. 1001-1002).

2. Dr. Rosen, in his testimony on risk sharing also discussed ways in which regulation can take the place of competition in the instant context. He stated that "in theory the discipline of the market helps ensure that investment decisions are made judiciously in the competitive market." (TR. Vol. XXXIII, p. 6714). Dr. Rosen also observed that for the regulated electric utility industry there are two principle means of achieving this effect. The first is an on-going process of critical review of utility planning with some state regulatory commissions holding long range planning hearings on a regular basis. The second process involves regulatory actions which provide incentives and disincentives. For example, requiring utilities to bear some of the costs of excess and costly new capacity encourages management to engage in more careful and critical planning.

3. Applicants, through witnesses Phillips and Roen, argue that public utilities cannot be judged with the same standards as might be appropriate for unregulated businesses. Public utilities have an obligation, unlike non-regulated firms, to serve present and future demand and, concurrently, have revenue requirements based on actual costs. Applicant argues that because of the long period of time over which investments are made, there are increased risks for electric utilities for which the regulatory process has traditionally afforded surety.

4. The Commission cannot embrace totally the views that regulation should produce the same results as the competitive market place. As applicants observe, there are significant distinctions between the obligations of

regulated and non-regulated firms. However, we agree with Dr. Rosen and other parties' witnesses that regulation must provide a mechanism which encourages good management planning. A comparison with the free market model in this light is of some value and is consistent with legislative directions to compare rates resulting from capacity additions with other utilities' rates.

5. We believe, moreover, that the "risk-sharing" approach advocated by Dr. Rosen has considerable merit. This is especially true in this complex case with much conflicting evidence. The Commission finds of particular relevance Dr. Rosen's testimony on evaluation of planning prudence:

> Q. In evaluating the planning process, is it not difficult to distinguish between imprudence and just poor planning?
>
> A. Yes, it is. This is one reason why I believe that there is a need for clear, equitable, and strong risk sharing policies to be established by regulatory commissions to be able to deal with the consequences of poor planning, even if no imprudence is demonstrated. The standard for imprudence in investments is generally quite restrictive, referring to losses which were sustained due to negligence, wastefulness, or dishonesty. In some cases, utilities periodically did the correct type of study, yet the assumptions or methods used were so unrealistic that the resultant management investment decisions were so unreasonable that they may have bordered on negligent. Another source of potential imprudence would be grossly insufficient study or project review altogether.
>
> Q. How, then, would a regulatory agency use the six criteria that you have elaborated above to decide upon a precise sharing of excess costs?

A. One cannot be completely precise in these matters. Sometimes public utility commissions have decided that, short of any outstanding consideration, a 50/50 sharing between ratepayers and stockholders of the amount under dispute is appropriate, but other proportional splits have been adopted. Sometimes a return *of* an investment is granted (depreciation or amortization), but not a return *on* the investment (it is not included in rate base). I believe it is reasonable to say that significant deviations from a 50/50 sharing formula relative to total expected economic losses should be justified. For instance, stockholders might be required to bear a greater proportion of the burdens if the company planning process that led to the losses was particularly poor, or if company decisions did not seem continually sensitive to the need to keep rates as low as possible.

(Rosen, TR. Vol. XXIII, pp. 6718-20).

6. With reference to risk sharing, the Legislature has also explicitly instructed the Commission to examine "whether the utility accepted risks in the construction of the facility which were inappropriate to the general public interest to Kansas." K.S.A. 1984 Supp. 66-128(a)(11). The Commission believes that the applicants have, in fact, accepted enormous risks in connection with the Wolf Creek project. As observed by Dr. Rosen:

> Constructing a large new facility involves numerous risks. First, capital cost estimates for baseload units have consistently proved to be low. Second, achieving fuel savings sufficient to offset high capital cost requires that baseload units be operated a substantial portion of the year. Finally, if load growth and fuel price projections prove to be inaccurate, a costly baseload facility may not realize the benefits for which it was originally planned.

> All of the factors I just mentioned are particularly applicable to nuclear units because of their long construction periods, large unit size, and unexpectedly poor operating performance and high operating costs. (TR. Vol. XXIII, p. 6721).

The estimated costs of the plant have grown from the original 1973 estimate of $525 million to the "Definitive Estimate" of $1.033 billion in December of 1976 to the latest official July 1984 estimate of $2.904 billion or over $2600/KW. The actual final cost will likely be over $3 billion. Since the November 1981 estimate of $1.952 billion, the costs have increased more than $900 per kilowatt. As discussed by several witnesses, during this time of increasing cost estimates for completion, the growth in demand forecasted was also decreasing while the economics of coal fired generation began to look more favorable. The unfavorable picture became, of course, even gloomier when KEPCo reduced its ownership share and attempts to sell participation or energy to other utilities failed. The applicant despite these trends did not appear to seriously consider the possibility of cancellation.

7. Indeed, KG&E management and stockholders positively affirmed the decision to continue the project on two occasions in the face of serious concerns by some stockholders. Exhibit G-Staff-36, the May 21, 1980 Notice of Annual Meeting of Shareholders contained the following shareholder proposal:

> STOCKHOLDER PROPOSAL NO. 1 to be presented at the annual meeting of stockholders of the Kansas Gas and Electric Company, May 21, 1980.
>
> We recommend to the Board of Directors that construction of the Wolf Creek Unit No. 1 nuclear power plant near Burlington, Kansas be stopped.
>
> STATEMENT IN SUPPORT OF THE PROPOSAL:
>
> In our opinion, undue burdens on the stockholders are presented by these financial uncertainties:

a) accidents such as Three Mile Island has experienced,

b) as yet unknown safety requirements that will be imposed by the Nuclear Regulatory Commission,

c) cost overruns and construction occasioned by faulty work may not be allowed as part of the rate base and might have to be borne by stockholders,

d) rising costs of repairs,

e) cost and availability of nuclear fuel, and

f) cost of decommissioning the plant.

We agree with the Company that operating in a socially responsible way is important. Are we socially responsible if we continue constructing a nuclear plant which, in our opinion, will:

a) possibly double the cost per unit of electricity,

b) expose workers during its operation, repair, and decommissioning to above normal radiation with its attendant increased risks of cancer and genetic damage,

c) use larger quantities of water having first priority over community needs even in times of drought,

d) emit radiation over neighboring farms which can enter plants and animals, become part of the food chain, and increase risks to the health of this and future generations, and

e) create thousands of cubic feet of radioactive waste when we do not know how to transport or store it safely?

Exhibit G-Staff-38, the May 27, 1981 Notice of Annual Meeting, contained a similar shareholder proposal:

STOCKHOLDER PROPOSAL NO. 3.a to be presented at the annual meeting of stockholders of the Kansas Gas and Electric Company, May 27, 1981.

We recommend to the Board of Directors that construction of the Wolf Creek Unit No. 1 nuclear power plant near Burlington, Kansas be stopped.

1. The *cost of construction continues to mushroom* from the projections first given stockholders. The Cresap, McCormack & Paget report, commissioned by the Kansas Corporation Commission, states that safety-related regulatory and licensing requirements will effectively triple the costs (from 1973) in plants loading fuel in 1986.

   If the sale of 17% of Wolf Creek to Kansas Electric Power Cooperatives is not successful, it is unlikely that, KG&E will be able to generate its share of the 1.1 billion dollars needed to complete Wolf Creek. If KEPCo does buy and is only liable for costs up to 1.5 billion instead of the projected 1.7 billion dollars, this will put an unfair burden on other stockholders.

2. The Investor Responsibility Research Center, Inc. has stated that the ability of other Kansas utilities to contract for cheap Wyoming coal may place power from *Wolf Creek at a competitive disadvantage* once the plant is completed, if construction, operation, or fuel costs, rise considerably. In our opinion, this will, in all probability, be the case with Wolf Creek.

3. The *need for Wolf Creek can be obviated,* according to many authorities, by promoting all possible conservation efforts.

STATEMENT IN SUPPORT OF THE PROPOSAL:

1. It is imperative that Kansas citizens be protected from any build-up of radioactive fission products in the environment where they can become concentrated in the food chain. The cost of safely containing Wolf Creek's low level radioactive waste and approximately 30 metric tons per year of spent fuel (high level radioactivity) on the site or of transporting it in safe and guarded shipments to Federal repositories in other parts of the country, will greatly increase the cost of the fuel cycle.

2. Uranium ore supplies are limited and uranium 235 fuel will rise in cost as easily accessible supplies near depletion.

3. Although $400,000,000.00 has been calculated into Wolf Creek's total construction cost for decommissioning, Metropolitan Edison has estimated that it will cost $1,000,000,000.00 (1 billion dollars) and five years to decommission their Three Mile Island reactor.

4. According to the Energy Project at the Harvard Business School (1979), *the United States with a serious commitment to conservation, might well consume 30 to 40% less energy than it does now.* This was borne out by a program in Los Angeles, initiated after the Arab Oil embargo went into effect. Total electrical usage dropped by 17% in one year.

8. In response to both shareholders proposals the company's Board of Directors stated that the decision to build Wolf Creek was sound, the sunk investment was large and would be wasted and without Wolf Creek, the company would be unable to meet demand for electricity by the late 1980s. Mr. Cadman, under cross-examination by staff, conceded that the decision to continue construction

was based more on concerns about fuel availability than on the need for capacity. Of the voting shares, 82.7 percent cast votes against the 1980 shareholder proposal and 75.8 percent against the 1981 proposal to halt construction.

9. The Commission agrees with staff's observation that it is difficult to imagine more compelling facts indicating company shareholder assumption of the risks of continuing in light of changing economics.

C. *FINDINGS AND CONCLUSIONS*

1. After careful consideration of the above facts and the entire record, the Commission concludes that the portion of Wolf Creek which is used and required to be used is an extraordinarily expensive means of providing base load capacity which could have been provided at a more reasonable cost. The rates resulting from full rate base treatment of Wolf Creek would be unreasonably high for ratepayers to pay and unreasonably high compared to other electric utility rates in Kansas. Imposition of such rates would have a detrimental impact on ratepayers and the general economics of the state. Although the lower fuel and operating costs of a nuclear plant may ultimately result in favorable rates, this would not occur until some time in the future. The decision to continue construction of Wolf Creek, especially after 1981, was not based on adequate or realistic analysis and review and appears to have stemmed from institutional inertia. Certainly by the end of 1981, applicants should have been acutely aware that the capital costs of Wolf Creek were becoming unreasonably high and that the overall economic benefits were subject to serious question. Faced with changing economics of the benefits of Wolf Creek, the applicant and its shareholders continued to assume the risks involved in a project of such magnitude. We believe in light of these facts that simple exclusion of the physical excess capacity of Wolf Creek

would still result in an unreasonable valuation of property in rate base.

2. One of our considerations deserves further comment. Even under the best of circumstances, a high priced capital addition to rate base such as a generating facility causes some inequities among various generations of ratepayers. As mentioned previously, the overall benefits to ratepayers of such a facility increase over time as the capital costs decrease through accrued depreciation. Even if there are overall economic savings or benefits over the life of the plant, those benefits may never be felt or realized by the earlier generations who pay for the higher capital costs at the beginning of the plant's life. This intergenerational inequity occurs to some extent relative to each item of investment included in a utility's rate base, but normally the overall effect is moderated by the mixture of plant in rate base at various stages of economic life. In the instant case, however, Wolf Creek investment would dominate the plant-in-service rate base account of the applicant, so that such inequity would not be effectively offset. Also, in the instant case, of course, are serious questions of whether there would be an overall benefit over the life of Wolf Creek. For both reasons serious intergenerational inequities would result without further adjustments.

3. The Commission has reviewed with interest the examples of other state commissions' actions cited in witnesses' testimony and the parties' briefs with regard to excess capacity and risk sharing. We would also note the Kansas case of *Kansas Power & Light Co. v. Kansas Corporation Commission*, 619 P.2d 320; 5 Kan. App 2d 514 (1981). In that case, the Court of Appeals determined that the benefits of capital gains resulting from the sale of an office building should not accrue solely to the shareholders of the company. Although capital gains warrant different considerations than economic losses associated with an excessively expensive generation facility,

that case appears to recognize the principle that equitable division of economic consequences between shareholders and ratepayers is appropriate. Other states have taken actions which range from exclusion of all physical excess capacity above a fixed reserve margin to a limitation of the capital costs of a facility. These excessive costs have been totally excluded or have been shared between ratepayers and shareholders by adjustments to return. We believe that a combination of approaches is warranted in this case. In view of the fact that the decision to construct and build Wolf Creek was not supported by a need for physical capacity, a physical excess capacity adjustment is undeniably appropriate. In addition, the exorbitant capital costs of Wolf Creek must be addressed by some type of adjustment. Although evidence was presented, primarily by Dr. Rosen and Dr. Komanoff, that at some point the Wolf Creek project should have been cancelled, we cannot conclude with the absolute certainty which we believe is necessary that such conclusion would necessarily have been made. If such were the case, a total exclusion of excessive capital costs from rate base would be warranted. We believe instead that no return should be allowed on that portion of Wolf Creek which is not used and required to be used and represents unreasonably high capital costs. By allowing a return of the costs through depreciation but no return on the costs, we are dividing the economic consequence between ratepayers and shareholders in an equitable manner.

4. We are not basing this decision on a "prudence determination." Although substantial evidence has been presented that the excessive costs of Wolf Creek are the consequence of imprudent decisions and actions of the applicant, we do not make such a finding today. We do believe that KG&E has not performed adequately throughout much of the period during which Wolf Creek has been built and that more rigorous reviews of likely consequences and alternatives may have avoided the exorbitant costs associated with Wolf Creek. We do find that sub-

stantial risks were involved in the Wolf Creek project and a significant portion of the economic consequences should be shared by the company.

5. As noted previously, applicant contends that while the Commission is free to choose among several valuation methodologies, the methodology chosen should be uniformly applied to all of the utility's property. The Commission disagrees. First, we note that the statutory provisions enacted by H.B. 2927, particularly those in K.S.A. 1984 Supp. 66-128g, appear to be directed primarily at new additions to electric generating capacity. The Commission in this proceeding is determining the value of such an addition to applicant's system. It has in the past already determined the reasonable value of other assets which were determined to be used or required to be used and included them in rate base accordingly. No evidence has been presented in this proceeding that the reasonable value of such other facilities is greater than such historical original costs. Furthermore, the Commission would be most reluctant to determine that when the "economic" value of an asset increases above its historical book value, the assets should be revalued for ratemaking purposes. If, as occurs in the unregulated industries, the utility assumed all risks that the "value" of a facility was less than historical costs, it might be appropriate for the rewards associated with a greater value to accrue to the utility. The approach taken today, however, is a far cry from imposing the excessive costs of Wolf Creek totally on the company. The shareholders will recover almost all the costs of Wolf Creek through depreciation; they will simply not earn as great a reward through return as they would if the reasonable value of Wolf Creek were equal to its historical value. The other assets already included in rate base at original cost have, of course, already received a return which did not include any risk sharing. With regard to the Wolf Creek plant excluded today, its value may increase with changes in

the comparative economics of coal generating facilities. If, for example, coal transportation costs escalate or "acid rain" concerns cause increased costs for coal generation facilities in the future, the figure adopted today could increase. Absent very compelling evidence, however, we cannot envision that value as being greater than the historical costs. Furthermore, the Commission is inclined to believe that that valuation of plant included in rate base should not change over time although that need not be addressed today.

6. With regard to the potential increases in the value of Wolf Creek due to its economic comparison with coal facilities, the Commission would make a few additional observations. We do not, of course, intend by establishment of this standard to create incentives for utilities to operate their coal plants in a less efficient manner. Any changes in operational characteristics will be subjected to close scrutiny. Indeed, as noted in another portion of this order, we are encouraging the utilities to improve efficiencies of their systems. Some parties have suggested system problems, such as minimum loading constraints, are created or exacerbated by the addition of Wolf Creek and have proposed various remedies. One such possibility is the creation of an ongoing performance standard program with both incentives and disincentives. The Commission believes that such programs are worth exploring and intends to do so.

7. The Commission's failure to adopt today any of the proposals should not be misconstrued as lack of concern about the alleged problems with the applicant's system configuration and operations. In fact, the Commission is inclined to agree that the Applicant's system has not only too much capacity but also too much base load capacity which causes system inefficiency such as the minimum load constraints discussed by a number of witnesses. Although this has been somewhat considered in our decision today, no additional adjustments have been

made. The Commission does not believe that there is sufficient evidence on the quantification of economic inefficiencies or appropriate remedies to take further action at this time.

8. There was also specific testimony on the need to revise the various standards in the current Energy Cost Adjustment (ECA) clause as a result of the operation of the WCGS. Those standards relating to line loss limits, thermal efficiency and fuel mix in the ECA clause potentially need adjustments but we do not believe there was sufficient evidence to make determinations at this time. We consequently intend to treat ECA tariffs filed in compliance with this order as temporary and to set the matter for hearing subsequently.

9. In determining the proper valuation for capital costs, the Commission has concluded that the proper value is what a coal-fired plant meeting the applicant's needs would have cost as suggested by Intervenor Mary Margaret Rogers. We believe that capital costs above this benchmark were part of the risks accepted by shareholders. There is a wide range of such costs in the record. We will mention a few.

10. Witness Komanoff's testimony contained a variety of figures for a coal plant including $639/KW for the estimated completion of JEC 4 in 1983 dollars (TR. Vol. XXXIV, p. 9980); $816/KW from a 1980 estimate for JEC 4 completion in the Spring of 1986 (*Ibid*, 10155-10156); and $900-$950/KW for an expensive coal plant with scrubbers in 1982 direct construction costs (*Ibid*, 10215).

11. Dr Rosen, in his analysis, assumed the costs of $1,983/KW for a 265 MW unit on line in 1989 and $1,770/KW for a second unit in 1993 with a 6 percent rate of inflation. (TR. Vol. XXIII, p. 6663). If brought down to 1985 present value, these costs would be around $1,570/KW and $1,110/KW respectively. A larger coal

plant with better economies of scale would, of course, be expected to result in lower costs.

12. Mr. Roen testified in regard to Exhibit G-Staff-29, a Bus Bar study done in 1981 by Mr. Lucas of KGE. A referenced 680 megawatt coal unit for completion in 1984 was assumed to cost $800 to $1,200 per megawatt pursuant to a study performed by Gilbert Commonwealth on behalf of MOKAN in 1980 and 1981. (TR. Vol. VII, p. 1772-1773). One of the reasons for the wide range was allowance for environmental control devices. The other annual studies performed by KGE contained in Exhibits G-Staff 24-28 all assumed a lower cost for a coal plant, of course, ranging from $570/Kw in 1975 to $850/Kw in the 1980 study.

13. Mr. Doyle, in his testimony, referred to a Black & Veatch study performed for KCPL. That report indicated a 650-700 megawatt coal plant for completion in 1985 to comply with environmental laws would cost $1,120 per kilowatt. (TR. Vol. XIII, p. 3585-3587).

14. Mr. Ferraro, sponsoring portions of the CMP report, Exhibit G-KGE-21, noted the United Engineers and Constructors (UEOC) studies reflected on Exhibit IV-5 of the CMP report. A 1975 study estimated the cost of a 1,000 MW coal-fired plant commencing operation in January 1985 as $750/Kw.

15. In contrast to the above historical estimates, there is the actual experience of coal fired plants recently operational in Kansas. The Holcomb plant, owned by Sunflower Electric Cooperative cost approximately $1500 per kilowatt and is considered a relatively expensive plant. The third unit of Jeffrey Energy Center, considered an unusually successful construction project by at least one witness (Komanoff, TR. Vol. XXXIV, 10158) cost less than $600/kw.

16. The Commission has concluded that a reasonable value for Wolf Creek capacity should reflect both the cost

estimates for a coal plant which were prevalent during the construction of Wolf Creek and the actual experience of recent facilities. There is, of course, no precise manner for determining the proper value. We believe, however, that $1150 to $1250/Kw represents a reasonable range for an appropriate value. This is substantially more than most of the estimates used in the owners planning studies and the JEC Unit 3 cost which did not require pollution control devices. It is of course less than the Holcomb per kilowatt cost, however, Holcomb did not benefit from the economies a larger unit would produce.

17. It is of some worth to compare this $1150-$1250/Kw range with the increases in costs which have occured for Wolf Creek construction beginning with the November 1981 estimate which should have given the owners serious concerns about the continued economics of Wolf Creek. From the prior estimate of $1.687 billion the costs have increased over $1.3 billion or over $1180/Kw. Also of some interest for comparison purposes is the figure of $1490 per Kw which owners' witness Fairchild stated was the incremental cost of increasing the size of Wolf Creek from 800 Mw to 1150 Mw, based on a total plant cost of $2.9 billion (TR. Vol. XXXII, p. 9632-33).

18. In evaluating the appropriate capital cost to be imputed to Wolf Creek, we also need to consider the lower operating costs of Wolf Creek in comparison to coal plants. There are, of course, a variety of plant comparisons which could be made. We have examined the generation costs of Wolf Creek, including the decommissioning costs we have adopted today, as compared to various coal facilities on the KG&E and KCPL systems. Schedules RAR 4.1 and 4.3 of Exhibit G-Staff-127 set out the generation costs associated with the coal plants which provided electricity in 1984 for KG&E and KCPL. These costs range from 1.5¢/Kwh for the Iatan unit to 3.1¢/Kwh for the Hawthorn units. The LaCygne units, jointly owned by the companies, showed costs in 1984 of 2.3¢/

Kwh for Unit 1 and 1.7¢/KWH for Unit 2. The respective average coal costs for the companies are 1.90¢/Kwh for KG&E and 2.00¢/Kwh for KCPL.

19. These costs may be used to determine the savings which might be expected from Wolf Creek over a coal facility by taking the difference per Kwh with Wolf Creek's estimated generation cost, approximately 1.58¢/Kwh. (See KGE Application, Section 8, Schedule 4). Assuming the capacity factor anticipated by the operating partner for Wolf Creek of 61 percent (Lucas, TR. Vol. XII, p. 3105, 3126) a considerable range of savings result. For example, LaCygne 1 generating costs of 2.3¢/Kwh compared to Wolf Creek results in an annual generation savings of $43,600,000. However, the LaCygne 2 comparison would show a savings of only slightly more than $7,200,000. When these generating cost savings are translated into capital costs, the range of approximately $174/KW to $29/KW results. Use of the average coal plant costs for the two companies results in a savings in a range from $19,340,000 to $25,400,000. The respective company average coal plant cost figure comparisons result in a range of $77/Kw to $102/Kw capital cost figure. We believe this range is most appropriate for our purposes here. We recognize that using the average coal generating costs does not correspond precisely with the fact that we have allowed a capital cost for current vintage coal plants which have lower generation costs. Such a more precise analysis would, of course, show less savings for Wolf Creek. However, for purposes of this case, we believe that a rough reflection of the generation costs being displaced by Wolf Creek is appropriate. A figure toward the lower end of the range would, however, be appropriate to compensate for the inclusion of older vintage plant generation figures. We also note that the generation costs for Wolf Creek do not include any reflection of future capital additions. The appropriate estimate for such costs was hotly disputed, but inclusion of

any costs would, of course, reduce the relative value of the plant.

20. The combinaiton of the $1150-$1250/Kw range for reasonable costs of coal plants combined with the $77/Kw to $102/Kw range for reflection of generation cost savings results in a total range of $1227 to $1352/Kw as a reasonable value for a comparable coal plant. We believe that the midpoint of this range of $1290/Kw is reasonable in this case as a value for Wolf Creek for which a return should be allowed.

21. The Commission recognizes that this valuation of Wolf Creek has necessarily been judgmental. As noted in applicants' briefs, however, "the determination of whether a plant is 'required to be used,' 'useful' or 'reasonably necessary' is not susceptible to a simple cookbook approach." (KCPL Brief, p. 19; KGE Brief, p. C-9) Applicants have urged that reliance solely on comparative economics or physical reserve margin would improperly narrow the application of the 'used and required to be used" standard and have urged primary consideration of management prudence. The Commission, as set forth above, has considered all three factors and believes that this decision reflects the appropriate valuation of that portion of Wolf Creek which is used and required to be used.

22. K.S.A. 1984 Supp. 66-128e provides in part that:

> In the event the commission finds that a portion of the costs were attributable either to investment in excess capacity which were incurred due to lack of prudence in facility planning or were incurred due to lack of prudence in plant acquisition, construction or operation, the commission shall exclude that portion of the carrying or finance charges incurred after the date of its findings, and no part of the carrying or finance costs excluded shall ever be or become part of the reasonable value of public utility property so used and required to be used.

23. As stated above, the Commission is not basing its decision today on a finding of imprudence except for the exclusion regarding unreasonable increases in construction costs. The Commission, therefore, is not required to exclude permanently the "carrying and finance charges" associated with physical and economic excess capacity adjustments we make today, although we have the discretion to do so under K.S.A. 1984 Supp. 66-128b. That statute provides as follows:

> The commission may require a public utility to defer inclusion of all or any portion of the reasonable value of property determined not currently used and required to be used and may require the phase-in of such value over any period of time and in such increments as it determines to be appropriate. If the commission requires a public utility to defer the inclusion of any portion of such reasonable value and orders a phase-in of such value, it may exclude any or all of the carrying or finance costs incurred after the date of the determination and throughout the period of any deferral or phase-in as so ordered.

24. Under the decisions we make today, all of Wolf Creek, except for that portion resulting from construction cost overruns and schedule delays, will be subject to recovery by depreciation expense. The physical and economic excess capacity exclusions are, however, ineligible for a return on investment. Consequently, those amounts are today not fully included in rate base. Although those exclusions may well someday be fully in rate base, we are unable to project when that will occur. Therefore, we must decide on a reasonable treatment of the carrying costs for the excluded amounts.

25. We find that some carrying costs associated with the debt and preferred stock costs of capital should be accrued. Such carrying costs, however, should only be those associated with the portion of Wolf Creek excluded on a physical excess capacity basis valued at the same

economic value as the portion included in rate base. This amount should be capitalized by applicant at the overall weighted cost of debt and preferred stock and recorded on a net-of-tax basis as a debit to FERC Account 186, Miscellaneous Deferred Debits and a credit to Account 421, Other Income and Deductions. Amortization of this amount for ratemaking purposes will commence with the Commission's final order determining permanent rates associated with Wolf Creek. The amortization period shall be over the then remaining life of the Wolf Creek plant on a straight line basis. No interest compounding shall be allowed on the balance in the deferral account. Changes made by the Commission in the future on the amount of Wolf Creek which is excluded will, of course, result in a prospective modification of the deferral calculations and amounts.

VII. *DECOMMISSIONING*

A. *INTRODUCTION*

1. Of all the issues in this important rate case, one of the most unique and most vexing is the issue of decommissioning. Decommissioning of a nuclear power plant is the removal of contaminant radioactive material down to residue levels considered acceptable for permitting unrestricted use of the plant and its site. While the regulation of activities regulated to decommissioning of a nuclear power plant has traditionally been within the purview of the Nuclear Regulatory Commission (NRC), the actual collection of decommissioning funds by a regulated utility is accomplished through financial arrangements subject to approval by a utility regulatory commission.

2. Pursuant to the requirements of House Bill 2927, the Commission must determine whether a utility having an ownership interest in the Wolf Creek Nuclear Power Plant has provided a method to assure that the cost of any decommissioning of the facility will be paid for by

the utility. Three issues must be addressed by the Commission:

(1) the alternatives available for physical decommissioning of the facility;

(2) the total estimated cost of decommissioning the facility; and

(3) the appropriate method of collecting funds for ultimate use in decommissioning the facility.

B. *PHYSICAL DECOMMISSIONING*

3. Under present technology, there are five basic alternatives for decommissioning nuclear facilities:

(a) mothballing

(b) entombment—with delayed dismantling

(c) DECON—immediate dismantling

(d) SAFESTOR—mothballed/delayed dismantling

(e) ENTOMB—entombment/delayed dismantling

4. Both Neil Talbot, staff witness and Thomas LaGuardia, witness for the partner applicants recommended the DECON alternatives as being the current, state-of-the-art alternative. No witness disputed this testimony. We have no difficulty in approving the DECON method of decommissioning at this time, subject to future modification as events and technology dictate.

C. *COST*

5. Both Messrs. LaGuardia and Talbot have suggested total estimated cost figures to be used as an assumption for revenue requirement purposes. Mr. LaGuardia did a site specific study tailored specifically for Wolf Creek. He is regarded as an eminent authority in the field, having been directly involved in the decommissioning of BONUS and Elk River reactors, having co-authored the U.S. Department of Energy's "Decommissioning Hand-

book" and having prepared numerous site-specific decommissioning cost estimates. (*LaGuardia, TR. Vol. V, p. 1079*). Mr. LaGuardia's estimated cost figures are based on a 40-year life of plant, are in constant 1983 dollars, do not include inflation and include a 25 percent contingency factor. (ibid). Both Mr. LaGuardia and Mr. Talbot proposed a regular, periodic review of the total estimated decommissioning costs.

6. Staff Witness Talbot disagreed sharply with Mr. LaGuardia's estimated decommissioning costs. Mr. Talbot is not a recognized authority in the field and did not do a site-specific study. Mr. Talbot emphasized trends over time in the decommissioning area and reviewed the wide range of uncertainties involved, the fluctuating range of cost estimates and the consistent tendency of industry cost estimates to rise over time. Mr. Talbot concluded that 300 million dollars (in 1983 dollars) was a more realistic cost estimate. On questions from the bench during his rebuttal testiminy, Mr. LaGuardia updated his 1983 estimates to 1985 dollars and indicated ". . . it would certainly be higher . . . 130, 140, 150 million is possible." (TR. Vol. XXX, p. 8956).

7. The evidence is clear that decommissioning cost estimates are inherently uncertain and speculative. Mr. Talbot's testimony graphically outlined the historical escalation in cost estimates. To date, there has been no actual experience decommissioning a large, commercial nuclear plant and cost estimates have traditionally been low. Also, the current shortage (indeed non-existence) of the sites for the disposal of large quantities of radioactive waste makes detailed estimates of shipping distance and cost virtually impossible.

8. On the other hand, Mr. LaGuardia's study was tailored specifically to Wolf Creek in that it utilized Wolf Creek design and elevation drawings and plant description. The different plant characteristics of nuclear units

are such that a site-specific study is clearly of more value than general trend observations, however valid.

9. We believe the most realistic cost estimate, at this point, to be the mid-point of Mr. LaGuardia's updated estimate—$140 million.

D. *LIFE OF PLANT*

10. Although there was conflicting testimony on the estimated life of the plant, we believe that the NRC and general industry estimates of 30 years is a valid and realistic life to utilize for purposes of decommissioning estimates.

E. *FUNDING OF DECOMMISSIONING*

11. The Nuclear Regulatory Commission has identified six major alternatives available to utilities for funding decommissioning. These can be divided into two groups: plant specific approaches and pooled approaches. At this time, no pooled approaches are available to companies. Examples of pooled approaches include surety bonds, decommissioning insurance and funding for general tax revenues.

12. Of the plant specific approaches, there are three basic alternatives for funding decommissioning: prepayment; contributions to an external trust during the life of the plant; and contributions retained by the companies in internal reserves. These are identified as:

(a) prepaid plan,

(b) external trust fund,

(c) unsegregated internal fund,

(d) segregated internal fund.

Staff is proposing the external fund method be employed by all the Wolf Creek partners.

13. The NRC has suggested five criteria for evaluating alternative financing mechanisms for nuclear decommissioning:

(a) degree of assurance that the funds will actually be available at the time of decommissioning,

(b) cost,

(c) intergenerational equity—that the cost of decommissioning be spread equitably to all ratepayers throughout the life of the facility,

(d) flexibility—responsiveness to changes in the basic assumptions,

(e) adaptability—ability of the plant to adapt to different ownership and jurisdictional arrangements. See Wood, "Assuring the Availability of Funds for Decommissioning Nuclear Facilities," NRC Report, March, 1983.

14. In determining the appropriate funding mechanism to be employed, the testimony of the witnesses must be viewed in the context of the NRC criteria.

15. Applicant KG&E is, therefore, ordered to file tariffs to begin collecting its proportionate share of $140 million over a 30-year time frame for the purpose of physical decommissioning of the Wolf Creek Generating Station.

16. Applicant KG&E proposed, and staff agreed, that an external funding mechanism be created to manage and invest the decommissioning funds. Applicant KG&E is directed to immediately seek proposal, for an external funding mechanism and to submit a plan for Commission approval as soon as possible.

17. Consistent with testimony from the witnesses, the Commission will review the decommissioning component of this Order at least every three years.

VIII. *WOLF CREEK O & M EXPENSE*

1. Included in the application in this matter was applicant's share of the $64.9 million in Operations and Maintenance expenses projected for Wolf Creek, not including nuclear fuel expenses. In the common hearing portion of these proceedings, staff proposed two adjustments. The first was to exclude $202,989 in EEI assessments for TMI cleanup costs. The other adjustment was to adjust out the salary and fringe benefits of the Project Director who no longer works on the Wolf Creek site. The two adjustments totaled $588,564.

2. Applicant did not contest staff's adjustment and no specific adjustments were proposed by the parties. The Commission finds these adjustments appropriate and reasonable and accordingly adopts them. Applicant's share of these adjustments is $260,439. The Commission would expect staff to evaluate the actual O&M expenses in the permanent case to determine their reasonableness.

3. The Commission would make one additional observation with regard to operational and maintenance expenses of the Wolf Creek Generating Station. We have accepted the operating partner's estimate of these costs based on testimony that those sums are necessary and reasonable to insure the reliable and safe operation of the plant. We recognize that the decisions made today will place financial stress on the owners and particularly the operating partner KG&E. Under questioning by a Commissioner, Mr. Cadman stated that even under such an eventuality, no cutbacks would be made on the expenses which could affect the safe operation of Wolf Creek. The Commission agrees with Mr. Cadman that safe reliable operation of this nuclear plant is of utmost importance. We do not expect KG&E or the other owners to take any action which would raise concerns in this regard.

IX. *WOLF CREEK DEPRECIATION RATE*

1. Applicants in this case originally requested a depreciation rate of 3.53 percent based on a forty-year life. The Applicants' witness, James Aikman, noted that remaining life depreciation was more appropriate than straight line rates but at the beginning of the assets life, there was no difference in the resulting rates. Staff recommended a straight line depreciation rate of 3.44 percent. As sponsored by witness Melinda Mosher, this rate was based on a span life of thirty years, annual interim retirements of 12 percent and a net salvage rate for interim retirements of -6 percent. Her rate did not allow for forecasted interim additions under the theory that to do so would allow for recovery of investment not yet made.

2. Applicants stipulated to staff's proposal for purposes of this case only and without implication for the useful life of the plant. Other parties also stipulated to the staff recommendation. The Commission finds the staff depreciation rate of 3.44 percent reasonable and adopts the same. We should note that in making this finding, it is unnecessary to determine whether remaining life depreciation or the straight line method is most appropriate for Wolf Creek, since the rates would be the same under either at this time. We expect to address this issue some time in the future and would merely indicate that in view of the unique nature of this investment we would not foreclose use of remaining life.

X. *MISCELLANEOUS*

A. *FUNDING FOR PAYMENT OF DIVIDENDS*

1. From 1977 to 1984 the owner utilities found themselves in a restrictive financial situation. Nevertheless, dividends were not only paid but increased during this time period. (Exhibit G-KGE-21, p. V-9, V-12, V-17, and Exhibit V-5). In light of the financial condition of the

owner utilities, it has been argued dividend payments should have been suspended.

2. If it is determined that an electric utility has borrowed funds in order to pay dividends and the borrowing to pay dividends was imprudent, the Commission may adjust the utility's revenue requirement accordingly. K.S.A. 66-128e.

3. There has been no conclusive evidence that KG&E externally financed the payment of dividends during the construction of the Wolf Creek Generating Station. Over the course of the construction program, there appears to have been adequate internal cash flow to meet the cash payment of dividends, though the company may have borrowed funds to meet temporary shortfalls.

4. The Commission is unable to conclude the payment of dividends during construction of the Wolf Creek Generating Station was imprudent. The prudence of dividend payments must be assessed in light of the circumstances that existed at the time the payments were made and irrespective of the prudence of the decision to invest in, or continue investing in, the Wolf Creek Generating Station. Under the conditions that existed it is doubtful suspending dividend payments would have improved the owner utilities' financial conditions or would have reduced the ultimate cost of building Wolf Creek. If dividends had not been paid during the construction phase of the Wolf Creek Generating Station, the owners would likely have been unable to issue common stock at or near its book value.

5. Although the payment of dividends may not have been imprudent, we must express concern about the decision to increase dividends from 1977 to 1984. Particularly during the latter stages of the project, increasing dividends may not have been in the best interest of the company, the stockholders or the ratepayers. If dividends had not been increased, additional funds would have been available for internal funding of construction costs.

6. It is not clear that the decision to make dividend payments *per se*, during construction of the Wolf Creek Generating Station, was an imprudent decision on the part of the owner utilities.

B. *IMPOSITION OF WOLF CREEK FINES AND PENALTIES AND RATEMAKING TREATMENT THEREOF*

1. NRC Inspection Reports reveal KG&E's quality assurance function was ineffective in the early years of construction of Wolf Creek. (Exhibit G-Staff-63, p. VIII-22).

2. Quality related concerns resulted in increased monitoring by the NRC, the issuance of citations and the imposition of civil penalties. (Exhibit G-Staff-63, p. XI-32, Schedule VIII-6, p. 1-21). For example, in 1983 the owner utilities were assessed a $40,000 civil penalty for failure to adequately control activities affecting the quality of safety related systems. (Exhibit G-Staff-63, p. XI-33).

3. With regard to the proper ratemaking treatment of such fines and penalties, the Commission is not inclined to allow expenses associated with the payment of fines and penalties to be passed through to the ratepayer. Pursuant to K.S.A. 66-128i, fines and penalties assessed by the NRC are presumed to have resulted from a lack of prudence and if the presumption is not rebutted by competent evidence, the Commission may reduce the utilities' revenue requirements accordingly.

4. In this case, the fines assessed by the NRC were properly excluded from the utilities' rate requests. (Brown, TR. Vol. IV, p. 1285).

C. *LEASING OF NUCLEAR FUEL*

1. Both staff and applicant presented testimony concerning nuclear fuel costs. Staff witness Talbot concluded that in general the applicant has procured nuclear fuel

in a reasonable and prudent manner and that the resulting nuclear fuel expenses are reasonable, once the credits arising from the Westinghouse case settlement are taken into account. Tabot did suggest, however, that KG&E had not adequately explored the possible benefits of a trust-leasing arrangement for nuclear fuel. The record does reflect that KCPL's use of such an arrangement may account for 7.5 percent lower nuclear fuel costs for KCPL than KG&E.

2. KG&E witness Hansen, however, argued under cross-examination that there are no benefits since there would be offsetting higher AFUDC rates. The Commission did not find Mr. Hansen's short analysis clear and, therefore, believes a more comprehensive report is desirable. We, therefore, order KG&E to submit within six months a report as to whether KG&E and its ratepayers could obtain any benefits from a nuclear fuel trust leasing arrangement.

D. *PERIODIC REPORTS*

1. Inherent uncertainties surrounding commercial operation of the state's first nuclear generating facility require the rate relief granted to be interim in nature, subject to true-up at a subsequent proceeding. Without historic data, operating and maintenance costs must be projected. The fact that a plant the size of Wolf Creek has not been retired creates great uncertainty about the cost of decommissioning. The effect Wolf Creek will have on the owner utilities' overall generating mix have prompted concerns about fuel savings, reliability, the need for power and the cost of replacement power. These and other issues cannot be addressed with the desired level of certainty until actual operating data is available.

2. The existence of excess generating capacity and the decision to disallow costs associated with the amount of capacity not required to be used has magnified the importance of accurately assessing and continually evaluat-

ing system peak demand and load growth. If the demand for capacity grows, and a greater amount of the Wolf Creek Generating Facility is required to be used, appropriate adjustments may be made.

3. In light of these uncertainties, and in anticipation of subsequent true-up proceedings, periodic review and oversight of certain Wolf Creek related issues will be necessary.

4. Pursuant to the authority vested in the Commission under K.S.A. 66-101, *et seq.*, KG&E, is hereby instructed to file formal quarterly reports concerning the Wolf Creek Generating Station's: 1) equivalent availability; 2) capacity factor; 3) scheduled and forced outages; 4) operating and maintenance expenses; and 5) decommissioning estimates. In additiion, the quarterly reports must include an evaluation of total system peak demand, total system load growth and information concerning insurance coverage for property damage, liability and replacement power attributed to incidents at Wolf Creek.

E. *JOINT UNIT COMMITMENT AND ECONOMIC DISPATCH*

1. Pursuant to the utilities' obligation to provide, and the Commission's authority to require reasonably efficient and sufficient service, the Commission has the responsibility to monitor the utilization of generating facilities of jurisdictional utilites.

2. The commercal operation of the Wolf Creek Generating Station will alter or otherwise affect the unit commitment and dispatch practices of KG&E, KCPL and other interconnected utilities.

3. The objective being to minimize costs while ensuring adequate and reliable service, the Commission encourages jurisdictional utilities to conduct a comprehensive evaluation of centralized dispatch, joint unit commit-

ment and other means of improving coordination in wholesale markets and increasing economic efficiency and overall reliability.

4. The optimal utilization of generating facilities and the reliability of existing generating facilities and available reserves should also be considered in the utilities' evaluation of methods to enhance economic coordination among interconnected utilities.

XI. *KG&E COMPANY—SPECIFIC ISSUES*

A. *BUDGET PROCESS AND TEST YEAR*

1. There is no contested issue with regard to the KG&E budgeting process or the formulation of the test year used for purposes of this proceeding. At this juncture, however, it may be helpful to review the formulation of the test year and rate base periods utilized by KG&E for purposes of the rate application.

2. Pursuant to an agreement entered into between the applicant, staff and the parties hereto, KG&E bases its application on a fully projected test year commencing January 1, 1985, and ending December 31, 1985. The test year is adjusted to reflect a full year of commercial operation of WCGS.

3. With the exception of fuel inventory and cash working capital, the value of the rate base was to be calculated using a thirteen-month average. The agreement provides that fuel inventory and cash working capital amounts would be calculated according to the principles adopted by the Commission in Docket No. 136,380-U, KG&E's last previous rate case. The thirteen-month period for the rate base calculation is the thirteen-month period ending December 31, 1985.

4. In addition, the agreement provides that the applicant would make available historical data for the twelve-month period prior to March 31, 1984, and a com-

plete reconciliation of the historic period to the projected test year.

B. *INTERIM RATE RELIEF*

1. It is significant to note that the Commission normally utilizes an historic test year as a basis to project rate base, operating expenses and income of rate request applicants. Implicit in that practice is a recognition that use of the historic test year concept reduces the conjecture inherent in setting rates based on estimations of future performance.

2. Unfortunately, the anticipated commercial operation of WCGS created a situation in which the use of an historic test year was not practical for this case. Instead, the application is based on KG&E budgetd levels of expenditures, investment and revenue. Staff witness Duzel Yates testified that use of a forecasted test year requires assumptions regarding budgeted expenses and revenues which may vary significantly from actual experience. (TR. Vol. B-4, p. 1120).

3. For example, there are uncertainties about the actual level of Operations and Maintenance (O&M) expenses incurred for the operation of the Wolf Creek plant. As readily conceded by KG&E, the O&M budget, as a projection only, will likely vary from actual experience. The actual expenses will depend on the operation of the plant, personnel performance and regulatory requirements. Furthermore, the owners have flexibility in the number of employees who will finally be hired out of the budgeted 400 positions and in the amount of consulting work to be done. This flexibility only highlights the fact that the level of O&M expenses is uncertain and actual expenses could vary substantially.

4. Staff recommends interim rate relief be granted so that permanent rates can be based on the inherently more reliable historic data, adjusted for known and de-

terminable items. Staff's recommendation is not contested by KG&E.

5. We note that in addition to the concerns raised by staff, certain aspects of our findings regarding the common issues also provide justification for interim rate relief as a result of these proceedings. Actual levels of fuel savings, capacity factors and demand growth occasioned by actual operations of WCGS are factors which ought to be considered in setting permanent rates. Therefore, because we find staff's recommendation reasonable and because the impact of commercial operation of WCGS should be considered in establishing permanent rates, the rates established herein shall be interim. Additionally, we find that a six-month period of commercial operation of WCGS is sufficient to provide a period of historical operations upon which to set permanent rates. The six month period shall commence as of the initial date of WCGS commercial operation, September 3, 1985.

C. *NON-WOLF CREEK RATE BASE MATTERS*

1. With the exception of the WCGS issues discussed above, and certain aspects of the jurisdictional allocation process discussed below, there is only one contested issue with regard to KG&E's jurisdictional rate base. Staff proposed a total of eight adjustments to the KG&E jurisdictional rate base.

2. Staff Adjustment No. 1 reflects staff's jurisdictional allocation methodology as sponsored by staff witness Decker and is discussed in a subsequent section of this order entitled "Jurisdictional Allocations." As noted in our discussion of KG&E's jurisdictional allocations, while we find merit in Mr. Decker's proposals, we are rejecting staff's allocation methodology. Therefore, Staff Adjustment No. 1 is rejected.

3. Staff Adjustment No. 2 is a fallout adjustment and is necessary because staff's adjustment to rate base will

affect the gross utility plant in service (excluding general plant). As a result, the No. 4 allocation ratio, general plant, is revised. Therefore, we find an adjustment of $9,287 appropriate.

4. Staff Adjustment No. 3 reflects the application of staff's recommended depreciation rate for nuclear production plant. The owners did not contest this staff recommendation. We adopt staff's Adjustment No. 3 and approve of the methodology used to quantify staff's depreciation rate, which we adopted earlier in this order. However, because we are rejecting staff's jurisdictional allocation factors, the adjustment is modified to reflect our adopted allocation factors. Therefore, we find a decrease to the reserve for depreciation of $1,140,982 appropriate. Likewise, Kansas jurisdictional rate base will increase $1,140,982.

5. Staff Adjustment No. 4 eliminates the carrying costs and depreciation expense associated with the Jeffrey Energy Center of which KG&E is a part owner. KG&E proposes to include in rate base as spare parts inventory a portion of its investment in a turbine originally purchased for use in constructing Jeffrey Energy Center Unit 4. Construction of Jeffrey Energy Center Unit 4 has been indefinitely postponed by the owners of that particular facility. In the meantime, the owners are utilizing the turbine generator for Unit 4 as spare parts for the other three operating units at Jeffrey Energy Center.

6. Staff contends that KG&E has not demonstrated that Unit 4 is used and required to be used in KG&E's spare parts inventory and, therefore, opposes rate base treatment of the Unit 4 turbine generator.

7. Staff witness Novin testified in support of staff's recommendation to exclude the Unit 4 turbine from spare parts inventory. According to Mr. Novin, KG&E has been unable to establish, by way of an engineering or economic study, that the inclusion of the Unit 4 parts

in inventory is justified. Additionally, Mr. Novin asserts that the Unit 4 parts are not included in the normal Jeffrey Energy Center spare parts system and that KG&E has used arbitrary factors to allocate the Unit 4 parts to the spare parts inventory. The essence of Mr. Novin's testimony appears to state that KG&E has simply not carried its burden of establishing the necessity of carrying the Unit 4 turbine generator in spare parts inventory.

8. We note that the Jeffrey Energy Center owners have allocated only 59.5% of the cost of the Unit 4 turbine generator to the spare parts inventory. Accordingly, only 59.5% of the cost of the Unite 4 turbine generator is included in rate base under the KG&E proposal. KG&E witness Macklin testified in support of the inclusion of Unit 4 in rate base. Through the testimony of Mr. Macklin, it is evident that portions of the Unit 4 turbine generator, or similar parts, have been utilized in the past and are currently utilized as spare parts at Jeffrey Energy Center. Additionally, it appears that the use of such parts have in the past and could potentially avoid costly economic losses associated with prolonged outages at Jeffrey Energy Center. The allocation of only 59.5% of the cost of the turbine generator to inventory appears to reflect a careful determination by the Jeffrey Energy Center owners as to which of the various turbine generator components are not only useful, but are also necessary as spare parts.

9. The Commission finds that the inclusion in spare parts inventory of 59.5% of the Unit 4 turbine generator is reasonable and, therefore, the Staff Adjustment No. 4 is rejected and the proposal of KG&E to include that portion of the Unit 4 turbine generator in rate base as spare parts inventory is deemed reasonable and is accepted.

10. Staff Adjustment No. 5 eliminates investments associated with the Neosho Lake Lodge that the Applicant

included in its utility plant in service. The Neosho Lake Lodge portion of total company plant in service is $65,016, or $61,108 Kansas jurisdictional. The related reserve for depreciation is $51,784 total company, or $49,513 Kansas jurisdictional. KG&E has eliminated the expenses associated with the operation of the Neosho Lodge. Staff Adjustment No. 5 provides for consistent treatment of KG&E's investment in the Neosho Lodge by removing this asset from rate base. Staff's quantification of the adjustment results in a $11,595 reduction in rate base. KG&E did not contest staff's Adjustment No. 5. The Commission finds staff's adjustment reasonable in principle and adopts staff's quantification of the adjustment. Therefore, staff's Adjustment No. 5 is adopted. Due to our findings regarding jurisdictional allocation factors, the adjustment is modified to a reduction in rate base of $12,025.

11. Staff Adjustment No. 6 decreases total company utility plant in service by $6,800,000, or $6,393,360 on a Kansas jurisdictional basis. The purpose of the adjustment is to reflect savings realized from the energy produced from pre-commercial operation of the WCGS. By order dated March 11, 1985, in Docket Nos. 120,924-U, 142,098-U and 144,918-U, the Commission found that the savings realized from the production of test energy at WCGS shall be credited on a monthly basis to capital account 107, construction work in progress.

12. Staff witness Wess testified that the $6.8 million estimated savings resulting from the production of test energy at WCGS is based on a KG&E *estimate*. Mr. Wess also testified that the Applicant did not include the savings realized from testing WCGS as a reduction to any capital account. KG&E did not contest or rebut Mr. Wess' testimony in this regard. Therefore, we adopt staff Adjustment No. 6 in principle. Because we are rejecting staff's jurisdictional allocation methodology, the quantification of the adjustment as per staff's recom-

mendation will change. Based on the estimated savings of $6.8 million and applying the approved jurisdictional allocation methodology, staff Adjustment No. 6 is appropriately stated as a $6,406,524 reduction in KG&E's rate base.

13. Staff Adjustment No. 7 to rate base is a quantification of the PMA adjustment discussed previously in this order. In addition, Adjustment No. 7 is dependent on our decision related to jurisdictional allocation factors. We adopt staff Adjustment No. 7 to rate base as modified here, because it properly reflects the earlier adopted PMA adjustment and our adopted allocation factors by reducing rate base $120,757,693.

14. Staff Adjustment No. 8 to rate base would increase net cash working capital, and thus rate base, by $627,972. This adjustment reflects changes due to adjustments to the applicant's operations expense. We direct that Adjustment No. 8 be modified to reflect our decisions regarding operations expense. We adopt staff Adjustment No. 8, as modified herein, to increase net cash working capital, and thus rate base, by $122,388.

D. *NON-WOLF CREEK OPERATIONS ISSUES*

1. Staff proposed a total of ten adjustments to KG&E's operations expense. Staff Adjustment No. 1 to operations reflects staff's jurisdictional allocation methodology as proposed by staff witness Decker. As noted previously, we do not adopt staff's proposed jurisdictional allocation methodology as discussed in another part of this order. Therefore, we are rejecting staff Adjustment No. 1 to operations.

2. Staff Adjustment No. 2 to operations increases net operating income by $1,099,468. This adjustment reflects the effect of the depreciation rate that was sponsored by staff witness Mosher and is uncontested by the owners. We find Adjustment No. 4 to operations appropriate and

we adopt it as a corresponding adjustment to our earlier adopted depreciation rate. However, because we are rejecting staff's jurisdictional allocation methodology the quantification of the adjustment is modified to reflect our adopted allocation methodology and is restated as $1,140,982.

3. Staff Adjustment No. 3 to operations reduces depreciation and property tax expenses. This adjustment corresponds to staff Adjustment No. 7 to rate base, which quantifies the PMA adjustment adopted by the Commission. Since we have earlier adopted a revision of PMA's proposed adjustment, we find that staff Adjustment No. 3 to operations must be modified to reflect our earlier modification of the PMA proposed adjustment. Additionally, because we reject staff's proposed jurisdictional allocation methodology, staff Adjustment No. 3 to operations must be further modified.

4. The portion of staff Adjustment No. 3 to operations relating to property tax expense was contested by KG&E at hearing. KG&E witness Prothro testified that ad valorem or property taxes for KG&E are a legitimate cost of operating and owning property in any taxing district and cannot be avoided. He also stated that a reduction in KG&E's assets will not necessarily avoid property taxes, but will merely redistribute the burden among taxpayers. Mr. Prothro apparently believes that the intent of staff in excluding property tax associated with the PMA adjustment is to adjust the property tax expense to the actual property tax liability which KG&E will incur. Staff has indicated, however, and we find, that the purpose of the exclusion was to exclude property tax expense associated with an investment which staff contends should not be allowed in rate base. KG&E's estimate of property tax expense is an original cost calculation. According to staff, and we have so found, a portion of that cost was imprudently incurred. It reasonably follows that a similar portion of property tax is attributable to an imprudent investment.

5. The Commission agrees that it would be inequitable to require the ratepayer to bear the burden of expenses incurred due to imprudent investment. The Commission, therefore, finds staff's exclusion of property tax expense associated with the PMA adjustment to be reasonable and hereby adopts it.

6. Incorporating the Commission's findings with regard to the PMA adjustment and the jurisdictional allocation factors, staff Adjustment No. 3 is hereby appropriately determined to be $5,037,354.

7. Staff Adjustment No. 4 to operations reduces depreciation expense by $219,932. Staff Adjustment No. 4 to operations is a corresponding adjustment to staff Adjustment No. 6 to rate base to reflect the value of WCGS test energy. Staff Adjustment No. 4 to operations is uncontested and is hereby adopted. However, the adjustment should be modified to incorporate the same assumptions used to modify staff Adjustment No. 6 to rate base. Therefore, we find that the modified adjustment should be $228,236 and we adopt staff Adjustment No. 4 to operations accordingly.

8. Staff Adjustment No. 5 to operations would increase production expense by $505,828 to increase the annual provision for decommissioning of WCGS. We have discussed the allowance for decommissioning expense in another section of this order. In conformity with our earlier findings, we find staff's adjustment reasonable in principal, but find that the annual provision for decommissioning expense should be $828,000. Therefore, staff's adjustment is now a decrease of $547,368 to the annual provision for decommissioning expense.

9. Staff Adjustment No. 6 increases operating revenues by $2,278,290, or $1,847,465 on a Kansas jurisdictional basis. The adjustment reflects the rental income to be received from the lease of a 345 Kv transmission line to KCPL. The adjustment is uncontested and is

hereby adopted in principle. However, because of our findings regarding jurisdictional allocation factors, the adjustment should be modified to reflect those findings. We find an appropriate adjustment is an increase in jurisdictional revenue of $1,887,791.

10. Staff Adjustment No. 7 to operations is uncontested by KG&E. This adjustment quantifies the impact of staff witness Yates' adjustment to Wolf Creek Operations and Maintenance Expenses. Because we have previously adopted staff witness Yates' adjustment regarding Wolf Creek Operation and Maintenance Expenses, we hereby adopt Adjustment No. 7 to operations, in principal. Again, however, because we are rejecting staff's proposed jurisdictional allocation factors, the quantification of staff Adjustment No. 7 to operations should be modified. Therefore, the adjustment is modified from the proposed amount of $260,439 to an amount of $269,915.

11. Staff Adjustment No. 8 to operations decreases depreciation expense by $82,177. Staff Adjustment No. 8 to operations is a corresponding adjustment to the proposed staff adjustment eliminating from rate base certain portions of the Jeffrey Energy Center Unit 4 turbine generator. Because we reject staff's adjustment to rate base concerning the Unit 4 turbine generator, we accordingly reject staff Adjustment No. 8 to operations.

12. Staff Adjustment No. 9 reduces electric production expenses by $4,852,514. The purpose of staff Adjustment No. 9 is to reflect Operation and Maintenance levels for the LaCygne Unit Nos. 1 and 2 as projected by KCPL for the 1985 budgeted test year. According to staff witness Wess, KG&E and KCPL each own 50% of LaCygne Unit Nos. 1 and 2. However, both companies utilized remarkably different assumptions concerning the use of LaCygne Unit No. 1 during the test year. KCPL assumes that LaCygne Unit No. 1 will be operated only seasonally from May through September. In contrast,

KG&E, in its application, assumes that LaCygne Unit No. 1 will be on line from October through April, a total of 2,218 hours out of a possible 5,088 hours. Accordingly, the two companies propose dramatic differences in La-Cygne Operation and Maintenance Expense for the 1985 test year. Mr. Wess notes that KCPL is the operating partner of the two LaCygne units. Therefore, he reasons, KCPL's assumptions regarding future operations should be given greater weight. Staff's adjustment restates the KG&E Operations and Maintenance Expense for La-Cygne Units 1 and 2 to the levels used by KCPL in its 1985 test year.

13. KG&E witness Macklin testified that staff's adjustment regarding the LaCygne station is inappropriate. Mr. Macklin notes that LaCygne Unit 1 will actually be in operation for at least eight months during 1985 and, therefore, concludes that KG&E's assumptions are correct and no adjustment to the LaCygne operations expense is warranted. Mr. Macklin also contends that since the rates established here will probably be interim rates, subject to true up, whatever actually happens during 1985 is properly included in KG&E's cost of service.

14. Although LaCygne Unit No. 1 will actually operate more than seasonally in 1985, the Commission notes that WCGS did not actually operate during all of 1985. The KG&E application is based on a projected test year in which commercial operation of WCGS is assumed for the entire period. It appears that KCPL scheduled seasonal operation of LaCygne in anticipation of the commercial operation of WCGS. That LaCygne Unit 1 will actually operate at least eight months during 1985 appears to be irrelevant when WCGS is not actually in operation and rates are based on a projected test year in which full operation of WCGS is assumed.

15. We find Mr. Macklin's reliance on the establishment of interim rates here to justify inclusion of excess operations expense unreasonable. It is likely, and in

light of our previous findings it is assured, that permanent rates will not be established on the basis of pre-WCGS commercial operation.

16. In light of KCPL's assumptions regarding seasonal operation of LaCygne, and also in light of the historically troubled operating history of LaCygne Unit No. 1, the Commission agrees with Mr. Wess' proposal to adopt the KCPL projections of seasonal LaCygne Unit No. 1 operation. We, therefore, adopt staff Adjustment No. 9 to operations in principal. Again, however, because of our findings regarding jurisdictional allocation, we find that the adjustment should be modified to an adjustment of $4,848,691.

17. Staff Adjustment No. 10 adjusts current income taxes to reflect the earlier proposed staff adjustments to operations. This adjustment may be viewed as a "fall-out" adjustment. To the extent we have adopted or rejected other adjustments to operations in this order, we necessarily adopt staff Adjustment No. 10 to operations. We note, however, that Adjustment No. 10 to operations will be modified to reflect our earlier findings regarding the other adjustments to operations and to reflect our findings regarding jurisdictional allocations.

18. One further adjustment to operations must be considered in Docket No. 142,098-U, staff asserted that the amount for rate case expense allowed in both dockets was being underestimated by KG&E. KG&E had estimated a total of $2,078,500 for both, or $1,163,500 for the generic portion and $915,000 for the company specific case.

19. From information recently received from Applicant, $4,719,214 has been charged for both dockets through July 1985. Applicant had proposed a four year amortization period or $519,625 per year being charged to operating expenses. If a four year amortization period is used for the new updated total of $4,719,200, then $1,179,800 would be amortized per year to operating

expenses or an increase of $660,175. This would increase the revenue requirement approximately $660,000.

20. We hereby adopt KG&E's proposal for amortization of the rate case expense over a four year period. Additionally, we accept $4,719,214 as the rate case expense for purposes of this order. Therefore, the applicant's allowance for rate case expense is increased $600,175.

E. *RATE OF RETURN*

1. Two witnesses presented testimony in the area of rate of return. Mr. Michael York testified on behalf of the Commission staff and Dr. William Avera testified on behalf of KG&E. To evaluate the rate of return for KG&E, staff and KG&E used the discounted cash flow (DCF) methodology. The DCF has been the predominant method of calculating the rate of return on common equity before this Commission and was the accepted methodology in the last KG&E rate case.

2. In performing its DCF analysis, staff used market data which is directly available because KG&E is a publicly traded utility. First, staff identified the dividend yield by using publications which publish dividend estimates. Staff estimated the dividends over the next four quarters to be 59 cents in the second quarter of 1985, 59 cents in the third quarter of 1985, 59 cents in the fourth quarter of 1985 and 61 cents in the first quarter of 1986.

3. Second, staff selected a price of a recent representative day. Staff chose March 21, 1985, after tracking the prices during the period of analysis to avoid the anomalies which can bias a single day price choice. The price at the close of trading on March 21, 1985, was $18.75. Staff used a current price rather than an average price because an investor purchases at a current price, not at an average annual, semi-annual or monthly price. The

Commission believes that the current price is an appropriate price to use in the DCF formula because it represents all the information that is currntly available to a company's investors regarding future profitability and the risk of the company. Therefore, the yield investors require on any date is the discount rate that equates the price and the expected stream of future dividends on that base.

4. Third, staff estimated the growth rate for use in the DCF formula by averaging both historic growth rates and future growth estimates to arrive at an estimated average growth rate for KG&E of 2.64 percent. The Commission finds that staff's estimate of growth was appropriate to use in the DCF analysis because investors review both historical and future growth projections when making investment decisions.

5. Last, staff estimated the market cost of equity. Staff obtained an unadjusted figure of 16.07 percent and then adjusted it to reflect the effect on stock price of floating new stock, market information and supply and demand pressures. This adjustment resulted in a reduction in the relative stock price over the last six issuances of 1.68 percent. The adusted dividend yield was then added to the growth figure to obtain the best estimate of the adjusted cost of equity, 16.31 percent. After arriving at 16.31 percent, staff took into account flotation costs and arrived at a weighted cost of 16.25 percent. The Commission finds that staff properly took into account that flotation costs are incurred only in the acquisition of common stock while equity funds are obtained through both common stock and retained earnings in arriving at a weighted cost of 16.25 percent.

6. Staff stated in its testimony that based on the information it received, it would typically recommend a 16.25 percent return on equity, with a range of reasonableness about that estimate of 15.60 to 16.60 percent.

However, staff reviewed KG&E's requested return on equity of 15.50 percent which resulted from KG&E's policy decisions and concluded that 15.50 percent would allow KG&E a fair and reasonable return on equity. Using 15.50 percent as the return on equity, staff recommended that the overall rate of return of 11.9949 percent be found the fair rate of return to allow KG&E in this rate case.

7. When KG&E performed its DCF analysis, a 17.00 percent return on common equity and an overall rate of return of 12.56 percent were obtained. However, this was not the overall rate of return which KG&E utilized in developing its revenue requirements and it is not the rate of return which KG&E requested in this rate case. KG&E, as a policy decision, chose to utilize the rate of return on equity of 15.50 percent to develop its revenue requirements, with an 11.98 percent requested overall rate of return.

8. KG&E, in its brief at pages VII-27 through VII-29, expressed the opinion that its proposed 15.5 percent rate of return would only be relevant if the Commission approved a first-year rate increase of $144.9 million. The Commission disagrees with KG&E's contention and finds that a 15.5 percent rate of return appropriately reflects a return on the prudently incurred investment. *Bluefield Water Works and Improvement Company v. Public Service Commission of the State of West Virginia*, 262 U.S. 1176 (1922) states on page 1182:

> A public utility is entitled to such rates as will permit it to earn a return on the value of the property which it employs *for the convenience of the public*. . . (Emphasis added).

9. The Commission has determined that imprudently incurred investment, investment not employed for the convenience of the public, should not be considered when determining the appropriate amount upon which to base a rate of return.

10. The Commission is of the opinion that staff's recommendation takes into account that the market reflects all of the information available to investors about the company. Therefore, staff's recommendation appropriately reflected investors' perceptions of the risk of the company, including the possibility that imprudently incurred investment could be excluded from rate base. Investors and forecasters are aware of the range of potential outcomes of nuclear plant rate cases, they are also aware of the potential effects of nuclear rate case decisions on the utility companies and they take those potential effects into account when making investment decisions and forecasting determinations. Because the current market price reflects KG&E investors' perceptions of the potential outcomes of the rate case, the Commission finds that no adjustment for the outcome is necessary.

11. The Commission considered all of the evidence presented in this case when reviewing the 15.50 percent recommendation for return on equity proposed by KG&E and concurred with by staff and, in its informed judgment, finds that it is the appropriate rate of return for KG&E in this rate case.

F. *REVENUE DEFICIENCY*

When a rate of return of 11.9949 percent is applied to the previously adopted Kansas jurisdictional rate base of $994,803,019, and a 2 percent additional return is applied to the $983,570 investment in load control equipment, the result is an operating income requirement of $119,346,471. When compared to test year operating income as adjusted and adopted herein, we find applicant has additional operating income requirements totaling $83,918,351. Assuming an appropriate income tax factor, Applicant's gross annual revenue deficiency is $166,653,463, as calculated in the Appendix to this order.

G. *JURISDICTIONAL ALLOCATIONS AND RATE DESIGN*

1. In determining an appropriate rate design, we must decide what portion of the total Kansas jurisdictional revenue requirement should be collected from each rate class. Several considerations must go into determining class revenue requirements. Among these considerations are costs, historical rates, value of service and ability to pay. For this order, we divide the rate design decision into three general areas:

(a) Jurisdictional Allocations

(b) Distribution of Increase

(c) Design of Rates and Rate Components

JURISDICTIONAL ALLOCATIONS:

2. Testimony on jurisdictional allocations came primarily from applicant and staff. However, James I. Sturgeon on direct testimony indicated applicant's jurisdictional allocation methodology was appropriate only if the retail and wholesale customers imposed similar load requirements. (TR. Vol. B-5, p. 1913, et seq.). On rebuttal, Charles W. Terrill for Kansas Electric Power Cooperative, Inc., contended that staff's adjustment to applicant's methodology was inappropriate and that the Southwestern Power Administration (SPA) hydroelectric peaking power received by KEPCo should receive full credit in the allocation process. (TR. Vol. B-4, p. 1421).

3. KG&E used a 12 coincident peak allocation factor for production and transmission plant and expenses. Staff generally followed the company's methodology in calculating allocation factors. However, staff recommended one significant change to the methodology used by applicant to calculate production and transmission allocation factors. Staff recommended that some of the wholesale customers' non-KG&E resources not receive full

credit in the allocation process. This position was vigorously opposed by applicant and KEPCo on the record and in briefs. Staff maintained that applicant's methodology valued too highly some of the other power and energy resources of wholesale customers. (TR. Vol. B-5, p. 1452 et seq.). Applicant and KEPCo argued that staff's reasoning was too theoretical and that real demands, not theoretical demands, should be the basis for allocating costs. (Lehman, TR. Vol. B-3, p. 750).

4. The Commission has traditionally utilized a 12 CP production allocation methodology for this company and concludes that a continuation of the use of this methodology is appropriate. The issue of the usefulness or value of SPA power and Generating Municipal owned production plant has never been a direct issue in previous proceedings before this body. While staff's methodology is thoughtful and has merit, we believe more study is necessary. Further review can be given to staff's methodology in the permanent case. For purposes of this case, applicant's jurisdictional allocation ratios are accepted and should be used for determining total revenue requirements.

5. We also note that applicant's jurisdictional methodology for production and transmission allocation differs from its retail production and transmission allocation methodology. If in the permanent case, applicant's methodologies differ, applicant should justify using dissimilar methodologies in both allocation processes.

DISTRIBUTION OF INCREASE

6. Applicant and staff proposed different approaches for spreading an increase in jurisdictional revenues. Both applicant and staff indicate a desire for equity. Applicant asserts that one of its prime objectives is the design of cost based rates and that the objective can be met if the increase in revenue requirement is al-

located so that the rates of return for all classes are approximately equal. (TR. Vol. B-3, p. 711).

7. Applicant proposed a gradual equalization of rates of return among classes: the percentage increase to classes would range from 8.3 percent to 50 percent. (TR. ibid).

8. Staff, on the other hand, has recommended that each customer class receive the same percentage increase. Staff asserts that this ensures that no class receives a disproportionate increase. Staff also indicated that because rates are interim that a proportional increase in rates is the most reasonable. An analysis of actual expenses and plant use would provide a better indication of cost to serve the various customer groups. (TR. Vol. B-5, p. 1465, et seq.).

9. As a general proposition, we are persuaded that because the rates established in compliance with this order will be interim rates, we should limit the increases to customer classes to the overall percentage increase received by the company. We feel that this will ensure that no class receives a disproportionate increase. In addition, it has been the historical practice of this Commission to increase rates proportionately when large additions to rate base have occurred.

DESIGN OF RATES AND RATE COMPONENTS

10. There were a number of rate design issues raised by applicant. Applicant's rate proposal included a number of changes to the existing rate structure. The Commission's decision on those proposals will be addressed in this section of the order.

11. Staff's general recommendation was to retain the current rate structure and simply increase each rate component by an equal percentage.

12. Many of applicant's rate proposals are laudable and noteworthy. However, the level of the increase in

total revenue requirement causes us to conclude that significant restructuring of rates is not appropriate at this time. Significant departures from the current rate structure could cause some customers to receive disproportionate increases. Additional information regarding the need for and probable impact of significant rate restructuring should be provided to support future proposed changes in rates. We, therefore, order that current tariffs be retained, with the exceptions noted below, and that all rate components be increased by the overall class percentage increases.

13. One issue in which applicant, staff and intervenors were all interested was that of customer charges. Applicant advocated what was characterized as a "full cost customer charge." Applicant's "full cost customer charge" is based upon a "minimum system" concept or analysis of distribution plant costs. The "minimum system" method classifies as customer-related the amount which would have been invested if all poles, wires and transformers were of minimum size necessary to provide service. The minimum investment is determined by taking the existing system at a minimum size and then valuing it on an embedded cost basis. (Lehman, TR. Vol. B-3, p. 719).

14. Staff opposed applicant's methodology in favor of a methodology that more narrowly defined customer related plant and expenses. Staff asserted that its methodology more nearly reflected the cost of adding a customer to the system, based upon average embedded costs. (Decker, TR. Vol. B-5, p. 1471).

15. We are persuaded that customer charges for this case should be proportionately increased by the class percentage increase. In general, we agree with the staff position that a more narrow view of customer related plant and expenses is appropriate. This is consistent with previous Commission decisions on customer charges

and there was no compelling evidence introduced to alter this position. We find a proportional increase in customer charges to be reasonable since in some instances this will increase customer charges to a level near that consistent with staff's recommended charges.

16. Applicant proposed including June as one of the summer billing months. (TR. Vol. B-3, pp. 716 and 722). While the proposal has some merit, the price sensitive nature of the June sales must be considered. As staff has pointed out, if June is included as a summer billing month and June rates are increased by a greater percentage than other rate components, June sales could be adversely affected. (Decker, ibid). In line with our general resolution to retain current rates and tariffs where possible, June shall not be included as a summer month at this time.

17. Applicant proposed a new "Essential Service" tariff. This tariff provides service at a significantly lower percentage increase than average for those customers who use less than 500 kilowatt hours per month. As proposed, these customers would qualify for an energy charge of 5.929 cents per Kwh and customer charge of $9.58 per month. (TR. Vol. B-3, p. 735). Staff reluctantly opposed the new rate as being unworkable and ineffective. There was an instructive exchange between applicant's counsel and Paul Johnson, witness for intervenor Mary Margaret Rogers as to how the proposed tariff could be made effective and workable. (TR. Vol. B-7, p. 2438 et seq.).

18. There are many reasons why an effective and workable tariff applicable to individuals with low energy usage is important. Such a tariff will provide a signal that conservation of energy is important. A "Conservation Tariff" will provide additional incentive to residential customers to conserve.

19. Applicant is ordered to file a "Conservation Tariff" with the following modifications:

1) To qualify, residential customers must:

   (a) Consume no more than 800 Kwh in each of the summer billing months, July, August, September;

   (b) Consume no more than 500 Kwh in each of the remaining 9 billing months;

   (c) Have an annual consumption that does not exceed 6000 Kwh; and;

   (d) Make application to KG&E for the Conservation Rate.

2) The winter and first block summer rate energy charge will be the same as the current energy charge for residential winter use, which includes the Interim surcharge and the Research and Development surcharge. The summer tail block rate will be the current summer tail block rate plus the Interim surcharge and the Research and Development surcharge.

3) The customer charge will be the same as for other residential customers.

With these modifications, the "Conservation Rate" can provide an effective incentive for customers to conserve energy. For purposes of developing rates, KG&E should assume an initial take by half of those eligible. KG&E shall submit periodic reports on the acceptance levels so that appropriate adjustments may be made if more than 50% choose this option.

20. We believe this rate is a realistic first step, subject to review in the permanent case, in recognizing low usage. The evidence as to how effective any low usage tariff will be for low income customers is conflicting.

We would hope that staff, applicant and concerned groups would carefully monitor the new "Conservation Rate" in this regard. In addition, staff and applicant are strongly encouraged to review other options—lifeline rates, conservation programs, weatherization to name a few—that might be implemented to help low income customers.

21. Time of Day rates—applicant proposed and staff supported, in general, a proposal to offer time of day rates for residential, commercial and industrial customers. Staff recommended one change to applicant's proposal. (TR. Vol. B-3, p. 716). Staff recommended that the assignment of costs to time periods should be done utilizing the cost of service methodology supported by staff. These allocated time period costs could then be used to determine time period rates. (Decker, TR. Vol. B-5, p. 1472). We believe that time of day rates may provide a reasonable alternative for some customers to control their engery costs. Thus, applicant is directed to file its time of day tariffs for residential, commercial and industrial customers. These tariffs should include rates which reflect staff's cost of service methodology and all Commission adopted adjustments to rate base and operations.

22. Industrial Development Rate—applicant proposed a new Industrial Development Rider "to provide an incentive to new and expanding industry." (TR. Vol. B-3, p. 739). While conceding the reasonableness of applicant's intention and purpose, staff nevertheless opposed the Industrial Development Rate. Staff believed not enough evidence had been submitted to show the proposal to be beneficial and pointed to applicant's own Cresap report as evidence that the rider may be of little value in promoting economic development and may result in an unjustified windfall to some customers. (TR. Vol. B-5, p. 1481).

23. While appreciating staff's concern, we believe that the Industrial Development Rider is an idea worth implementing, at least on an experimental basis. Applicant is directed to file the Industrial Development rider as proposed. This tariff is approved as an experimental tariff and is subject to future review and possible elimination. It is anticipated that if this tariff is eliminated at a future date, all customers receiving service under the tariff at that time would continue to receive service under the terms and conditions of the tariff.

24. Oil Field Rate—Intervenor Kansas Independent Oil and Gas Association (KIOGA) testified as to the effect of dramatically increased rates on the Oil and Gas Industry. It is also well-known that this important and energy intensive Kansas industry is currently in economic straits with concomitant effects on the Kansas economy. Witness Frank Gaines for KIOGA testified that applicant had utilized but later abandoned, at the direction of the then Commission, a rate for Oil and Gas operations. (TR. Vol. B-7, p. 2122). Applicant is directed to develop cost of service information regarding oil and gas operations in the service area for consideration in the permanent case.

25. Voltage Level Differential—Applicant proposes to differentiate rates based upon cost differences associated with different voltage levels. For example, customers who take service at certain voltage levels may not require the transformation or additional line that customers at lower levels may require. (TR. Vol. B-3, p. 727). Staff agrees that the proposal has merit and no party opposed the concept.

26. While this may be a meritorious rate design concept, we believe the information to be limited at this point. Both staff and applicant are directed to study the matter further for possible inclusion in the permanent case.

27. "Additional Demand" Discount Winter rate—applicant proposes to institute an "additional winter demand" charge which during each winter month would compare a customer's actual peak demand to the highest monthly peak demand established in the previous summer season. All winter Kw which exceed that peak summer Kw would be charged at 10 percent of the summer peak Kw rate. This proposal appears intended to promote winter sales. As proposed the discounted price is 1/10th of the regular price. (TR. Vol. B-3, p. 725).

28. While not retreating from its original position that current rates and tariffs be generally retained, staff indicated it could support adoption of this proposal with an important change. Staff recommended that the discounted rate be 2/3 of the regular rate rather than 1/10 in order to emphasize peak demands somewhat less while providing some incentive to make additional winter sales. (TR. Vol. B-5, p. 1472).

29. We agree that the proposed rate has merit and that it should be implemented in this docket. However, we believe the company proposed discounted rate to be too low and the staff's discounted price to be a little too high. We believe a 40 percent discount to be a fair and reasonable one and applicant is directed to file tariffs in accordance therewith.

30. Space Heat Rate—applicant proposed that the residential space heat energy rate not be increased, but rather that the existing charge of 4.62 cents per Kwh for all kilowatt-hours beyond 500 sold to electric space heating customers in October through May be retained. Applicant asserts that in order to expand the load management strategy and its benefits, it is necessary to send a strong message that it costs more to provide electric service during June through September than October through May. (TR. Vol. B-3, p. 726).

31. Consistent with its general position that any revenue requirement increase that may be necessary should be spread equally to all customers staff opposed applicant's plan, staff pointed out that applicant's proposal increases residential space heat total revenues by approximately 29 percent, significantly below the average percentage increase. (TR. Vol. B-5, p. 1474). Staff's rate proposal is to increase all rates by the average increase. Staff asserts in its brief that if a rate design other than the staff primary proposal is selected, the seasonal energy block charge be increased by the same percentage that is approved for the entire class.

32. The witness for KPL/Gas Service, Steve Johnson, argued that applicant's space heat rate proposal was not cost based in that it was not based upon average embedded costs. He contended that it is discriminatory to base some rates on fully embedded costs while basing other rates on other considerations. Mr. Johnson urged the Commission to base the space heat rate on a fully embedded cost analysis of costs (TR. Vol. B-7, p. 2139).

33. We believe the staff proposal to be the better alternative. While applicant expresses concern that staff's proposal will destroy its ability to retain electric space heating sales; we believe the staff reasoning to be more persuasive. The seasonal block charge sales are probably not as sensitive to price increase as other sales made to this group. Therefore, an increase in the seasonal energy block charge would probably not reduce or restrain sales as much as an increase to other rate components. Applicant is ordered to increase the electric space heating customer's seasonal energy block charge by the same proportionate increase as other residential customers.

34. General Service (GS) Tariff Limitation—applicant proposes to limit the GS tariff to new customers with normal maximum demands of less than 100 Kw. It is rea-

soned that such customers would establish a peak demand of 100 Kw or greater no more than once in any 12-month period. Applicant argues that the limitation is necessary because:

(1) the relationship between customer size and load factor.

(2) relationship between load factor and capacity costs per Kw of billing demand. (TR. Vol. B-3, p. 730).

35. While conceding the recommendation to be reasonable, staff opposed implementation at this time because of its general posture regarding no changes in tariffs. (TR. Vol. B-5, p. 1475 et seq.). We agree that this recommendation should not be implemented at this time but might merit serious consideration in the permanent case.

36. Large General Service—to be consistent with the above recommendation and for the same reasons, applicant proposed a 1,500 Kw limitation on availability of LLP service. (TR., ibid). This recommendation is denied at this time, but should be considered in the permanent case.

37. Large General Service Demand Ratchet—applicant proposed increasing the demand ratchet from 65 percent to 75 percent since capacity costs are an increasingly predominant share of KG&E's total costs. Applicant asserts that a 75 percent ratchet provides further incentive to customers to levelize their demands. This recommendation should not be implemented at this time, but should be considered in the permanent case.

38. High Load Factor (HLF) Voltage Level Differential—applicant proposed to include a voltage grid rate design for HLF tariff that would recognize cost differences in providing service at three different voltage levels. This recommendation would replace the current method of only providing credits per Kw of billing demand. (TR.

Vol. B-3, p. 732). This recommendation will not be implemented at this time, but should be considered in the permanent case.

39. Private Lighting Service—applicant proposed to limit the availability of mercury vapor lamps to existing installations. High pressure sodium lamps will be offered instead of mercury vapor because of increased efficiency. (TR. Vol. B-3, p. 733). Staff supported this recommendation, no party opposed it and it is hereby accepted.

40. Public Street Lighting Service (STL)—applicant proposed to segregate energy and fixed cost components to communicate to customers the costs of receiving street lighting service. Applicant also proposed that associated costs be paid at one time rather than in an additional annual charge. (TR. Vol. B-3, p. 733). Consistent with their general position, staff opposed restructuring of the street lighting tariff at this time. Glen Dockery, witness for intervenor City of Wichita, opposed any change in the rate structure of the Public Street Lighting (STL) tariff. Mr. Dockery stated that:

> KG&E should not be allowed to use an application for rate increase as a device to change the manner in which it has been doing business with cities. (TR. Vol. B-6, p. 2005).

We are persuaded by staff and intervenor that to amend the Public Street Lighting tariff is inappropriate at this time. While customers cannot be shielded forever from changes in rate structures, neither should they be subjected to sudden and dramatic changes in rate.

41. Educational Institutional Service—applicant currently has four declining energy blocks in this tariff. Applicant proposed to add a customer charge and reduce the number of blocks from four to two. Applicant asserts that this proposal would streamline the rate without producing disruptive impacts on customers. (TR. Vol. B-3, p. 732). Staff opposed the recommendation and we reject the recommendation at this time.

42. Applicant proposed certain changes to the Energy Cost Adjustment Clause (ECA) tariff. Only limited testimony was provided to support the proposed changes. Because of the importance of this tariff, we feel it is necessary to obtain additional information regarding the proposed changes. Accordingly, we direct the Commission staff to schedule a hearing to review the issues raised by the proposed changes. Applicant's compliance rates should include an ECA tariff with proposed changes. This tariff will receive temporary approval and will be subject to change dependent upon the outcome of the hearing on revised ECA performance standards.

43. Farm Service Rate—Dr. Larry Langemeier testified on behalf of Alliance for Livable Electric Rates (ALERT), specifically on the effect of proposed rate increases on rural, farm families, particularly in Southeast Kansas. Dr. Langemeier testified as to the current economic plight of Kansas farmers. Dr. Langemeier testified:

> ". . . we look at these farms . . . forgetting about rate increases or anything else, we expect about 4 to 6% of the farms in the state of Kansas will go bankrupt in 1985. . ." (TR. Vol. B-5, p. 1962).

44. Dr. Langemeier's testimony merely underscores a well-known fact about current economic conditions on Kansas farms. We would be derelict if we did not give serious consideration to this factor in this proceeding. Staff and applicant are directed to develop cost of service information regarding Domestic and Agricultural use of farm customers for consideration in the permanent case. Dr. Langemeier's testimony is persuasive and we find that it is reasonable to eliminate the $.001 rate differential in the Farm Service tariff. There was no evidence presented supporting this differential and, therefore, it is ordered that the Farm Service tariff rates should be equal to the Residential Service tariff rates. Further, it is ordered the applicant should file within sixty days,

for Commission review and approval, an optional Farm Service tariff with inverted block energy rates.

H. *PHASE-IN*

1. Having determined the revenue requirements for applicant KG&E, the Commission turns to consideration of whether a phase-in of the rate increase should be ordered. We note initially that KG&E in its application in this matter requested Commission approval to "fix rates and approve tariffs to increase KG&E's gross annual retail revenues on an interim basis by $144,912,250." Consequently, the Commission could not, in any event, authorize an increase exceeding that level. For the reasons discussed below we conclude that a slightly lower first year increase is warranted and total recovery of the revenue requirement should occur over an eight year period.

2. Several parties to this proceeding sponsored phase-in plans. As noted previously, applicant itself proposed to phase-in its revenue requirements over a five year period with the return on capitalized deferred revenues to be recovered over the depreciable life of Wolf Creek. This plan, as sponsored by Mr. Hansen, was intended to mitigate the burden on customers of a substantial one-time rate increase. (TR. Vol. B-3, p. 382). It provided for a first year percentage increase of 39.4 percent before reflection of fuel savings rather than a one-time increase of around 95 percent.

3. Witnesses Salecky and Drazen for the Hospital and Industrial Intervenors also proposed a phase-in plan which would reflect the excess capacity represented by Wolf Creek and the recognition of the company's inability to realize authorized increases if they were too large. Their proposal was for a seven year phase-in with an initial increase of 20 percent maximum. (TR. Vol. B-7, p. 2096).

4. Mr. Palast, on behalf of Intervenor ALERT also suggested phase-in as an alternative. He suggested, however, that no return should be allowed on deferred revenues since it increased the impact on ratepayers of the rate increase which was the main subject of his testimony.

5. Staff witness Talbot, based on staff's recommended revenue deficiency of $181 million, presented several alternative phase-in proposals. His recommended alternative would increase rates by $122 million the first year with the remaining amount to be addressed in the subsequent four years. He suggested that a phase-in was desirable from both the ratepayer's and company's perspective to prevent customer dislocations and associated revenue generation problems. His plans did provide for return on the deferred revenues.

6. The Commission believes that a phase-in is desirable, even for the revenue deficiency level which we find appropriate today. As noted in prior portions of this order, there was substantial evidence from the public and expert witnesses that a significant increase in rates would have serious consequences on ratepayers and the economy. We agree with the witnesses who observed that this in turn would affect the applicant's ability to actually generate its authorized revenues. Such a result could, of course, lead to an even higher level of rates to generate the same authorized revenues. Such a cycle would be in no one's interests. A phase-in is also appropriate since it further reflects the fact that the economic benefits, if any, of Wolf Creek are only realized over time, as discussed previously.

7. The Commission believes that an initial increase of $135 million before reflection of fuel savings is appropriate. This is somewhat below the applicant's request, which was apparently based on its analysis of minimum financial requirements rather than impact on ratepayers. Although the Commission must also consider the financial

needs of the Company, as discussed more below, we must also balance that against the ratepayers' interests. We do not believe that the 39.4 percent increase requested by applicant can be reasonably imposed on ratepayers without serious adverse consequences on both ratepayers and the company.

8. With the initial rate increase of $135 million, $31,653,463 remains to be recovered. We believe it appropriate for such amounts to be capitalized and a return allowed on such deferrals. We believe that a four-year period for rate increases is appropriate and that recovery of the deferral costs should take place within an eight-year period. With rate increases in the second and third years of $20 million and $11,653,463, our calculations show that an increase of $2,347,906 in the fourth year which would discontinue in the ninth year should allow total recovery. The first year increase is about 36 percent before fuel savings. The accounting procedure for this phase-in plan should be as proposed by applicant, with the exception that return on the deferred revenues is to be recovered as set forth above.

9. At this point, it is appropriate to discuss what consideration should be given by the Commission to the financial condition of the company. Staff's witness Talbot, in testifying on the minimum cash flow needs of the company, gave his observations on the considerations the Commission should give to the financial needs of the applicant. He recommended that the first task was to determine the appropriate ratemaking treatment and then, if that resulted in an inability to maintain financial viability, to make adjustments.

10. Some testimony was heard throughout these proceedings, both directly by a number of public witnesses and indirectly, that bankruptcy for the financially strained utilities building Wolf Creek was a legitimate, if not desirable, policy option. In rebuttal testimony, applicant KG&E was concerned enough to submit testimony regard-

ing the potential impact and consequence of bankruptcy. Mr. James B. Liberman, a partner in the New York law firm of Bishop, Liberman & Cook, and Mr. Robert M. Miller of the same firm, testified regarding the effects of bankruptcy. Mr. Liberman testified that there has not been a bankruptcy or reorganization proceeding involving a major investor-owned electric or gas utility since depression days. Mr. Liberman is also General Counsel for General Public Utilities Corporation (GPU), the holding company for the utilities that own the Three Mile Island (TMI) generating station. Mr. Liberman testified that extensive studies were generated as a result of the company's exposure during the TMI incident. The studies concluded that the risks, probable higher costs and potential impairment of service resulting from bankruptcy proceedings were such that GPU concluded bankruptcy should be avoided. Instead, GPU launched a program of tight financial controls which is still in place. Mr. Liberman described the financial implications inherent in any financial reorganization and described the difficulties experienced by those utilities that are analagous to electric utilities, namely railroads, that have undergone reorganization proceedings under the bankruptcy laws or other insolvency proceedings. Mr. Liberman pointed out that in any reorganization the company must have access to the necessary funds to enable it to continue to operate and would usually be dependent upon major bank borrowings. However, the uncertainty connected with priorities of a company in bankruptcy proceedings would make access to operating funds very difficult if not impossible. (TR. Vol. B-8, p. 2564, et seq.)

11. Mr. Miller testified that a Chapter 11 reorganization for an investor-owned utility would in all probability not produce beneficial results. According to Mr. Miller, a utility may well have minimal opportunity to reduce expenses substantially as a result of a reorganization, and without either a reduction in expenses or an increase in revenues the business could not continue. Continued

unprofitability would raise inevitably the issue of liquidation ". . . which is a hornet's nest due to the overriding public interest in maintaining service to the community." (TR. Vol. B-8, p. 2751, et seq.) Finally, the delay and expense occasioned by a Chapter 11 proceeding would cloud the situation even further. Much expense and time consuming litigation could be expected before the novel issues were resolved. In sum, although a Chapter 11 reorganization of an investor-owned utility is neither impossible nor inconceivable, it is clearly not a risk free option and should not be embarked upon lightly. The only thing that is certain is that huge economic losses would be borne by some combination of unsecured creditors, equity holders and ratepayers, with unknown but potentially devastating effects upon the utility, the state, other utilities and the local economy. Clearly, ratepayers face serious risks upon financial failure of a utility.

12. The Commission agrees with both the staff and company's witnesses on this matter. The Commission's concern should primarily be that of appropriate ratemaking which involves a balancing of interests. In the instant case, we have concluded that the balance requires some sharing of risk and consequent economic losses between ratepayers and shareholders. Should we conclude that bankruptcy of the applicant would follow from our ratemaking decision, further consideration would be warranted. We have determined, however, that such is not the case.

13. Applicant did not present in this case its own analysis of minimum cash flow necessary for the company. Instead, in rebuttal and through cross-examination, KG&E brought into question Mr. Talbot's conclusions that financial viability of the company could be maintained under staff's rate recommendations. KG&E's rebuttal witness Abrams suggested that bankruptcy cannot be overlooked under staff's proposal, particularly in the event of

unforeseen events such as storm damage, a coal miners strike, abnormal weather or other situations requiring cash. (TR. Vol. B-8, p. 2648). Skillful cross-examination of Mr. Talbot also brought out weaknesses and errors in this analysis. The Commission concludes, however, that at most, the company showed that staff's proposal would place the company under severe financial stress but would not inevitably force it into bankruptcy.

14. We recognize that the Commission decision herein will have an even more serious impact on the company's financial health. However, we believe that appropriate measures can be taken by KG&E which will enable it to continue to provide service. In addition to minimizing its construction budget and general other expenses and rescheduling debt obligations, the Commission believes that certain specific actions are appropriate. These include elimination of its expensive television advertising campaign which appears to be primarily aimed at generating good will but seems to have the opposite effect, and reduction of its executive salaries. These items, while not substantial expenses in themselves, give an indication that company management does not recognize the seriousness of its financial condition. Elimination and reduction of these expenses would no doubt engender more goodwill than the advertising campaign itself and would indicate willingness to take necessary measures. We would emphasize, however, that reductions in these and other expenses should not affect the quality of service which the company provides. KG&E has in the past provided good service to its customers. In particular, the Commission would commend KG&E's efforts with its Project Deserve program and hopes that it will continue to promote and encourage participation in the program. Since we have made no significant adjustments to the company's requested levels for all of the system's operations and maintenance expenses, we expect good service to continue.

IT IS, THEREFORE, BY THE COMMISSION ORDERED THAT:

1. Applicant is a public utility subject to the jurisdiction of this Commission under K.S.A. 66-117, which empowers the Commission to permit and authorize changes in Applicant's rates, charges and conditions of providing retail sale of electricity;

2. Applicant's existing rates for its electric service applicable to its Kansas jurisdictional operations will not permit applicant to earn a fair and reasonable return on its investment devoted to such service;

3. Each specific finding of fact made above is hereby adopted as an ultimate finding and conclusion of law by this Commission;

4. KG&E's application is hereby granted in part and denied in part, and the Commission authorizes and orders applicant to file rates and tariffs to produce additional gross revenue in the amount of $135,000,000, as calculated in the Appendix attached to this order, in accordance with the findings of the Commission;

5. Rates resulting from authorized revisions, as herein directed, will be fair, just, reasonable and sufficient and will not be unduly discriminatory or unduly preferential so that the same may be accepted upon their filing without formal objection by staff; said authorized new rates and charges shall be effective on sales rendered on or after approval by the Commission of the revised tariffs.

6. Applicant is further ordered to comply with all the Commission's directives and orders set forth herein.

7. The Commission retains jurisdiction of the parties and the subject matter for the purpose of entering such

further order or orders as it may from time to time deem appropriate.

Dated: September 27, 1985

Lennen, Chmn.; Wright, Com.; Henley, Com.

JUDITH MCCONNELL
Executive Secretary

LCD:rh

June 4, 1985
Wichita, Kansas
9:00 A.M.

Laurence Holmes
R. S. Townsley
Donna Hinderliter
Bill Fox
Joel Heller
Lester E. Davis
Ralph Nutter
W. W. Graber
Rosie Teague
Margaret W. Bangs
Margaret J. Miller
Brian Christinat
M. J. Wall
Jenny Ablah
Kathryn Brito
Lois Tripplett
Lois Koon
Ralph Krehbiel
Charles Schrufer
Lee Good
Mark Zavala
William A. Garrison
Mel Brito
Iona Nutter
Sam Arnholz
Albert Rollman
Karen Fitzgerald Jacobs

June 4, 1985
Wichita, Kansas
1:00 P.M.

James A. Ray
Mary Margaret Rogers
Arnold Fisher
Nancy Winters
Sherman Whitley
Kirk Riley
Lyle English
Duane Sanders
Roberta Mildfelt
Anthony Tarauglla
Vern Pratt
Theo Cribbs
George Iseminger
Cynthia Perry
Pat Moore
Cecil Spurgeon
Andrea Potts
Beverly Brown
Harold Plenart
Marj Kraus
Lowell Klein

June 4, 1985
Wichita, Kansas
7:00 P.M.

Andy Allen
Evelyn Hendrickson
Richard Harper
Charles Bayouth, Sr.
Samuel Ellerman
Pat Lehman
Jeannette Ewat
Richard Harris
Teri Fresna
Alan Eshbaugh
John Livengood
Esther Francis
Willard Shopenberger
Terry Garrison
Jacque LeNai
Marla Pruett
Marlene Denny
Jerry McCarter
Eric Fowler
J. Mart Cockerill
Leroy Lehman
Greta Crosby
Darrell Glamann, Sr.
Arthur Gould
Howard Lane
Richard Cowdry
Amilia Newberry
Junior A. Weller

June 5, 1985
Wichita, Kansas
9:00 A.M.

Edmund Lorenz
Neila Nelson
Alvin McClelland
Carlene Farthing
Bob Laughlin
Ben Linn
Rick Bowden
U. A. Lawrence
Lawrence Hill
Ray Casados
John Harnburda
William Stephan
James Donnell
Dale Smith
Vernon Rice
Elvest Lehl

Lucile Cook
George Collier
C. Duane Pieplow
Lloyd Striplin
James Ard
Fred Godesky
Euel White
Jess Windsor
W. C. Helderman
Robert Crosby
Paul Miller
Charles Kerschen
Aileen Ward
Richard Walter
Jack Kice

June 5, 1985
Wichita, Kansas
1:00 P.M.

Rogert Grund
Greg Ferris
Ms. Hagins
Deborah Spence
Walter Groves
Diane Valadez
Alec Odeuseff
Myra White
James Clark
Robert Handley
Amber Mills
Mike Sawyer
Marie Groebl
Randy Hershey
Reverend D. Miller
Dick Merkel
George Gird
Joyce Hall
Robert McElroy
Atha Moore
Herman Korte
Orin Lewis
Collette Ayers

Ernie Clark
George Bayouth
Bill Burns
Mary Abbott-Mills
Nancy Moyer
Don Travis
Jerry Baker
Vee Williams
Henry Stockwell
John Mitchell
Math Loehr
Leonard Cook
Danny Mayes
Walter Berry
Tom Lawless
Daryl Gomann
Marvin Cupps
Mrs. Darel Manning
Seybrun Lahrom
Glendora Johnson
Betty Plummer
James M. Saiz
Vincent Moore

June 5, 1985
Wichita, Kansas
7:00 P.M.

Mike Tuttle
Sylvia Wilcox
Dennis Fairbanks
Powell Yew
Gladys Newman
Barbara Olmsted
Peggy Twombly
F. E. Johnson
Camilla Swart
Carl R. Wilmoth
Steve Dechant
Ron Norgren
Charles Pike
Chuck Mills
Chuck Scarbrough
Shannon Sherwood
Frank Kerns
Don Vaughn
Michael Moore
Wayne Cupps
Eric Dyer
Lucy Baker
Theresa Prockish
Roy Philips
Eric Wolfe
James Bell
Gary Knepp
Richard Aldrich
Michael Lynn
Debby Moore
Alice Lofland
Donald Snyder
George R. Barte, Jr.
Donald Krummer
Retta Christey
Cindy Chalker
Thomas Kneil
Kelly Wendeln
David Bayouth
Elizabeth Illidge
Dorothy Foster
Alice Seaman
Edna Johnson
Pam Robinson
Carl Houchin
Margaret Knepper
Carol-Lyn Gaudio
Paul Becker
Judy Cameron
Martin Cook
A. J. Hawkins
Phillip Dosien
Luther Steele
Noon Nulan
Erwin Duerksen
Jerry Lawrence

June 6, 1985
Lindsborg, Kansas
1:00 P.M.

Timothy Clanton
Eugene K. Nelson
Nadine Griffin
Sue Christensen
Paul Krumm
Weeden Nichols
Margaret Ayers
Walter Pickett
Enid Stover
Paul F. Burmeister
LeLain Lorenzen
James F. Schmidt
Gerald F. Ridenour
Irva Brandt

June 6, 1985
Newton, Kansas
7:30 P.M.

James D. Rutschman
Ron Ewart
Alvin P. Voth
Harold Schultz
Wilbur Robinson
M. R. Schroeder
Duane Carmichael
Mrs. R. C. Classen
Billy Miller
Joyce DuFriend
Keith Wiens
Paul Vaughn
Herb Reimere
Sylvia Cowley

Christina Jost
Frank Little
Ralph Garrison
Gret Bartel
Lou Jenson
Maynard Janzen
Elmer Schmidt
Stan Adamson
James Nichols
Lloyd D. Pitchford
Mary J. Lehman
Arnold E. Funk
Loren D. Reusser
Raymond Brant

June 7, 1985
Meade, Kansas
1:00 P.M.

Roy Seybert
Larry Beard
Marcia Eads
Gred Borth
Jay Kirk Cottrel
Duane Eads
Frances Gates

Dean Borth
Don Dowell
Karen Cottrell
Melvin Neufeld
Dave Geist
Gloria McKinney
Ray Charles

June 7, 1985
ElDorado, Kansas
7:00 P.M.

Jarett Molen
Dana McCoy
Mac Burnham
Joe Marcum
David Wilson
Robert M. Green
Max Corbin
Wilber C. Reed
Eldon Phares
Judy Lawrence
Fred Silver
Maryon Payne
Paul A. Boyer
George Lawson
Margie Hayes
Paul Seely, Jr.
Robert McCord

A. Martin Millard
John Cameron
W. L. Reeves
Joe Taggart
Mike Tuttle
R. A. Voisin
Ted Baker
Harlan Seeber
Gene White
Frank W. Strait
Linda Richards
Tom Harms
LeRoy Hildreth
Jean Kanausman
M. C. Canfield
Eldon Phares

June 10, 1985
Topeka, Kansas
7:00 P.M.

Carl Jarrett	Ralph Turner
Phil Kassebaum	Paul Johnson

June 11, 1985
Paola, Kansas
7:00 P.M.

Virgil Thomas	Edward L. Samyn
Glen J. Underwood	Dave Slyter
Mrs. German	Harold Hendrickson
William C. Lawrence	William Dokos
Marvin Barkis	Darold J. Hendrickson
Mr. Doudna	Mr. Kern
Father Robert Pol	

June 12, 1985
Pittsburg, Kansas
7:00 P.M.

Robert Lyerla	Rev. Conrad Ide
Albert Kozjeb	Wendell Burg
Renee Willingham	George W. Clark
John Kozuh	Elmer Smith
Jim Engler	Rick Lindsbog
Lynda Pinegar	M. J. Hefferman
Chuck Kallaus	James Armstrong, M.D.
Ralph Wright	Don Prettyman
Sam Roper	Joni Raffel
John McNeill	Julie Bartletti
Rod Dutton	Steve Bitner
Morris Stevens	James Keeyan
Augusta Rua	Cindy Pucci
Leo Merando	Jonas Ascauin
Edward Gallup	M. Lee Caldwell
Bob Rinehart	Charles Dugone
Dick Lipka	Lou Davies
Flossie Perkins	Ray Green
Lanthon Camblin	Thomas J. LeClere
Ramiro Alvarez	Mari Peterson
Adal Bartletti	Randall Palmer
G. A. Oehme	Tom Boone
Jim Loeffler, Jr.	Gladys Thornburg
Robert Moore	Jim Call
Patrick Knapp	Larry Vanderpool
Sherry Dennis	Bertha Dechairo
Dave Louiselle	Charles Sesher
Vince Scimeca	James Ascanio
John Hannah	Sandra Matfield
Winona Smith	Joe Raffel
Don Ward	Paul Gravemann
Dick Loffswold	

June 13, 1985
Overland Park, Kansas
9:00 A.M.

Robert Runnels
Sally Farenthold
John Eilert
Bonnie Lankford
Ed Lackman
Mary Stewart
Robert Buenning
Diane Teglmeir
Hugh Bellas

June 13, 1985
Overland Park, Kansas
1:00 P.M.

Ed Eilert
A. E. Martens
Ray Miller
Olin Church
Stephen Fracul
Richard Wilms
Harold Davidson
Gene Haun
Walter Gates

June 13, 1985
Overland Park, Kansas
7:00 P.M.

Robert VanCrum
Genr Amos
Neil Rimintgon
Wayne Ricketts
Wilma McAmaw
Tom Caralijo
Claire Ewert
Dr. Stacy Ollar
Steven Eberlein
Mr. Thomas
Anne Nees
Mrs. Hall
Clarence Arndt
Bill Russell
Ed Stevenson
Rev. Dale Parson
Josie Riner
Al Frisby
James Firth
Richard Kaufman
Ron Rioner
Nady Currier
Floyd Lytle
Kal Makela
William Clark
Chris Martin
Roger Thomas
Rep. Vince Snowberger
Mr. Holtzman

June 18, 1985
Iola, Kansas
7:00 P.M.

Harold Williams
Solomon Evans
Eugene Leedy
Mary Ellen Salava
Herbert Smith
John Noonan
Art Solomon
Richard Prother
James Walters
J. B. King
Russell Otto
Albert Winn

June 19, 1985
Independence, Kansas
7:00 P.M.

Frank McCabe
James Gilmore
John Barnes
Lawrence Stanley
Vernon Wint
Dr. William Hall
Robert Boyer
A. P. Wildgrube
Scott Smith
Terry Brown
James Bryan
Charles Daneke
Lucinda Sharman
Boyd King
Jean Smith
David Maugane
Iuan Fail
Helen Wildgrube
Ida Schafer
N. Cutshell
Earl Mundy
Carl Clark
Orville Austin
John Vermillion
Joe Smith
Gary Davidson
Kathy Travis
Warren Satchez
Mollie Stewart

June 20, 1985
Beloit, Kansas
7:00 P.M.

Gene Meitler
Jim Bigham
Vivian Almon
Robert L. Brown
Garland Price
Tom Hofts
Max Oharro
Jim Gouldie
Kenneth J. Maginley
Roger Nelson
Wayne Pachta Cubaks
Clyde Thomas
Raymond James (C&W)

Date	Tr. Vol.	Witness	Sponsoring Party	Issue	Rebutting
5-13	1	Huston	KGE/KCPL	W.C. Management and Cost Prudence	
5-14	2	Huston	KGE/KCPL	W.C. Management and Cost Prudence	
5-15	3	Huston	KGE/KCPL	W.C. Management and Cost Prudence	
5-16	4	Huston	KGE/KCPL	W.C. Management and Cost Prudence	
5-17	5	Aikman	KGE/KCPL	W.C. Depreciation	
		LaGuardia	KGE/KCPL	W.C. Decommissioning Expense	
		Brown	KGE/KCPL	W.C. O&M	
5-20	6	Hagan	KGE/KCPL	Nuclear Fuel Expense Licensing Status	
		Roen	KGE	W.C. History/Mgmt. Prudence	
5-21	7	Roen	KGE	W.C. History/Mgmt. Prudence	
5-22	8	Roen	KGE	W.C. History/Mgmt. Prudence	
		Andrews	KGE	Industry Comparisons	

Date	Tr. Vol.	Witness	Sponsoring Party	Issue	Rebutting
5-23	9	Andrews	KGE	Industry Comparisons	
		Cadman	KGE	Management Prudence	
5-24	10	Cadman	KGE	Management Prudence	
5-25	11	Cadman	KGE	Management Prudence	
		Ferraro	KGE	Economic Impact	
5-28	12	Lucas	KGE	KGE System Operation	
		Gayoso	KGE	Decommissioning Cost Recovery	
		Branca	KCPL	W.C. at Wholesale	
		Crawford	KCPL	Nuclear Fuel and Waste Disposal	
		Peck	KCPL	KCPL's W.C. Audits	
		Liberda	KCPL	Decommissioning Cost Recovery	
		Morrow	KCPL	Nuclear Insurance	
5-29	13	Doyle	KCPL	Management Prudence	
5-30	14	McPhee	KCPL	Project History Management Prudence	
		Evans	KCPL	System Operation with W.C.	
5-31	15	Evans	KCPL	System Operation with W.C.	

		Limmer	KCPL	Capacity Reserves
		Cagnetta	KCPL	Unit Accreditation
6-1	16	Sullivan	KCPL	Rate Comparisons
		Knodel	KCPL	Forecasting
		Daicoff	KCPL	Economic Impact
6-10	17	Flaherty	Staff	Project Prudence
		Mitchell	Staff	Project Prudence
6-11	18	Mitchell	Staff	Project Prudence
		Yates	Staff	W.C. O&M
		Mosher	Staff	W.C. Depreciation Rate
		Ponce deLeon	Staff	Schedule and Direct Labor Disallowance
6-12	19	Ponce deLeon	Staff	Schedule, and Direct Labor Disallowance
		Mitchell	Staff	Project Prudence
6-14	20	Ponce deLeon	Staff	Schedule, and Direct Labor Disallowance
6-15	21	Ponce deLeon	Staff	Schedule, and Direct Labor Disallowance
		Nichols	Staff	Forecasting
6-17	22	Nichols	Staff	Forecasting
		Talbot	Staff	Decommissioning Cost and Cost Recovery

Date	Tr. Vol.	Witness	Sponsoring Party	Issue	Rebutting
6-18	23	Rosen	Staff	W.C. Cancellation, Economic Benefit	
6-19	24	Rosen	Staff	W.C. Cancellation, Economic Benefit	
6-20	25	Rosen	Staff	W.C. Cancellation, Economic Benefit	
6-21	26	Eaton	E.S.C.	Forecasting	
		Sturgeon	E.S.C.	Need for Power, Prudence	
6-22	27	Phillips	KGE/KCPL	Regulatory Standards	Rosen Sturgeon
		Fitzpatrick	KGE/KCPL	W.C. Cancellation, Economic Benefit, Forecasting	Rosen Nichols Eaton
6-24	28	Limmer	KGE/KCPL	Capacity Reserve Margin	Rosen
		Fitzpatrick	KGE/KCPL	W.C. Cancellation Economic Benefit Forecasting	Rosen Nichols Eaton
6-25	29	Meyers	KGE/KCPL	Capital Additions	Rosen
		Roen	KGE	W.C. Cancellation	Rosen
		Backus	KGE.	W.C. Cancellation	Rosen
6-26	30	LaGuardia	KGE/KCPL	Decommissioning Expense	Talbot Rosen

		Brown	KGE/KCPL	Project Performance. Management, Preplanning & Industry Comparisons	Touche Ross
		Springer	KGE/KCPL	Schedule	Ponce deLeon
		Petrick	KGE/KCPL	SNUPPS/NPI	Touche Ross
6-27	31	Huston	KGE/KCPL	Schedule	Ponce deLeon Touche Ross
		Van Nort	KGE/KCPL	Daniel Personnel, Quality	Touche Ross
6-28	32	Fairchild	KGE/KCPL	Industry Comparison, Economy of Scale	Rosen
		Ferraro	KGE	Industry Comparisons of Cost and Schedule	Rosen Ponce deLeon
		Wadsworth	KGE	(excluded)	—
6-29	33	Linderman	KGE/KCPL	Direct Labor Cost	Ponce deLeon
7-1	34	Komonoff	ALERT	W.C. Cancellation, Prudence	
		Wass	KGE	Management Prudence '80 CMP Report	Touche Ross
7-2	35	Wass	KGE	Management Prudence '80 CMP Report	Touche Ross
		Fouts	KGE/KCPL	Direct Labor Costs Construction Management Prudence	Ponce deLeon Touche Ross

Date	Tr. Vol.	Witness	Sponsoring Party	Issue	Rebutting
7-3	36	Fouts	KGE/KCPL	Direct Labor Costs Construction Management Prudence	Ponce deLeon Touche Ross
		Marks	KCPL	Forecasting	Nichols Eaton
		Branca	KCPL	W.C. Cancellation	Rosen
		Knodel	KCPL	Forecasting	Nichols Eaton
7-6	37	DeStefano	KCPL	Schedule	Rosen
		Rodabaugh	KCPL	Nuclear Fuel Expense	
		Beaudoin	KCPL	Rate of Return	
7-8	38	Evans	KCPL	Cancellation, System Operation with Wolf Creek	Rosen Sturgeon
7-19	39	Linderman	KG&E	Reconciliation	Ponce deLeon
7-15	B-2	Mohr	KG&E	Test year, Interim rate relief	
		Macklin	KG&E	Rate Base and Operations, JEC Spare T/G	Novin Wess
		Ruddick	KG&E	Rate Base and Operations	
7-16	B-3	Avera	KG&E	Rate of Return, Phase-In	Talbot

		Hansen	KG&E	Phase-In, FASB-71	
		Prothro	KG&E	FASB-71, Phase-In	Armstrong Wess
		Berndt	KG&E	Rate Design, Allocations	
		Lehman	KG&E	Rate Design, Allocations	
7-17	B-4	Lehman	KG&E	Rate Design, Allocations	Decker Johnson
		Bowyer (Stip.)		Rate Design	
		Herz (Stip.)	USAF	Rate Design	
		Lentell (Stip.)		Rate Design	
		Grabil		Rate Design	
		Allen (Stip.)	ALERT	Rate Design, Economic Impact	
		Yates (Stip.)	Staff	Test Year, Interim Rates	
		Drazen	Industrial Intervenors	Rate Design, Phase-In	
		Novin	Staff	JEC spare T/G	
		Wess	Staff	Income Tax Calculation Ad Valorem Tax Adjustment LaCygne 1 & 2 Operating & Maintenance Expense	
		Armstrong	Staff	FASB-71	
		Pauley	Staff (Stip)	Dispatch Modeling	
		York	Staff	Rate Design	
		Terrill	KEPCo	Allocations	

Date	Tr. Vol.	Witness	Sponsoring Party	Issue	Rebutting
7-18	B-5	Decker	Staff	COS Study Based on FAD Methodology	
				Jurisdictional Allocation	
				Space Heating Rate Increase	
		Talbot	Staff	Impact on Investors	Avera
				Ratemaking Treatment, Phase-In,	
				Impact of Staff's Proposed Rates on KG&E's Financial Integrity	Abrams
		Sturgeon (Stip.)	ESC	Rate Design	
		Langemeier	ALERT	Rate Design, Economic Impact	
		Ewy	ALERT	Rate Design, Economic Impact	
	B-6	Dockery	City of Wichita	Rate Design, Economic Impact	
		Cobler	Attorney General	Rate Design, Economic Impact	
7-20	B-7	Selecky	Industrial Intervenors	Phase-In	
		Gaines	KIOGA	Rate Design, Allocations Economic Impact	

		Johnson	KPL/Gas Service	Load Management, Rate Design & Allocations		
		Palast	ALERT	Economic Effect of Proposed Rates Phase-In Minimum Cash Flow		
		Paul Johnson	Mary Margaret Rogers	Rate Design, Economic Impact		
		Boyd	Vulcan	Rate Design, Allocations, & Economic Impact		
		Seglen	KIOGA	Rate Design, Allocations, & Economic Impact		
		Weir-Energren	ALERT	Rate Design		
7-22	B-8	Clemente	KG&E	Economic Impact	Palast	
		Liberman	KG&E	Phase-In Bankruptcy		
	B-8	Abrams	KG&E	Phase-In	Talbot	
		Miller	KG&E	Bankruptcy & Reorganization		
		Andrews	KG&E	Economic Impact	Palast	
		Knobloch	Industrial Intervenors	Load Characteristics, Capacity Needs, Rate Design and Allocations		
		Oakes	KG&E	Rate Design, Allocations	Knobloch Decker	

KANSAS GAS AND ELECTRIC COMPANY
Docket No. 142,098-U
Kansas Retail Revenue Deficiency

Line No.		$000's
1	Rate Base as Adopted	994,803
2	Rate of Return on Rate Base	11.9949%
		119,326
3	Return on Load Control Equipment	20
4	Net Operating Income Required	119,346
5	Net Operating Income Adjusted	35,428
6	Net Operating Income Deficiency	83,918
7	Income Tax Factor	.50355
8	Revenue Deficiency	166,653

KANSAS GAS AND ELECTRIC COMPANY
Docket No. 142,098-U
Kansas Retail Operating Income

Line No.		$000's
1	Operating Income per Applicant	55,215
2	Staff Adjustments Accepted by Commission:	
3	No. 1 Staff Allocation Change (Rejected)	
4	No. 2 Nuclear Plant Depreciation Rate Change	1,141
5	No. 3 PMA—Depreciation and Property Tax	5,037
6	No. 4 Wolf Creek Test Energy—Depreciation	228
7	No. 5 Decommissioning Costs	547
8	No. 6 Rental Income on 345 KV Transmission Line	1,888
9	No. 7 Wolf Creek Expenses	270
10	No. 8 Jeffrey Energy Center—Depreciation (Rejected)	-0-
11	No. 9 O & M Expenses on LaCygne No. 1 and 2	4,849
12	Taxes to Reflect the Effect of Other Staff Adjustments to Operations	(33,087)
13	Total Staff Adjustments	(19,127)
14	Adjustment for Rate Case Expense	(660)
15	Operating Income as Adopted	35,428

KANSAS GAS AND ELECTRIC COMPANY
Docket No. 142,098-U
Kansas Retail Electric Rate Base

Line No.		$000's
1	Rate Base per Applicant	2,030,344
2	Staff Adjustments Accepted by Commission:	
3	No. 1 Staff Allocation Change (Rejected)	-0-
4	No. 2 Staff Allocation on General Plant	(9)
5	No. 3 Reserve for Depreciation for Depreciation Rate Change	1,141
6	No. 4 Jeffrey Energy Center Utility Plant (Rejected)	-0-
7	No. 5 Neosho Lake Lodge	(12)
8	No. 6 Wolf Creek Test Energy	(6,407)
9	No. 7 PMA—Nuclear Plant	(120,758)
10	No. 8 Cash Working Capital	122
11	Rate Base per Staff	1,904,421
12	Commission Adjustments to Rate Base:	
13	No. 9 Excess Capacity	(716,304)
14	No. 10 Economic Revaluation of Nuclear Plant	(193,314)
15	Rate Base as Adopted	994,803

APPENDIX D

Order Denying Rehearing (KG&E)

THE STATE CORPORATION COMMISSION
OF THE STATE OF KANSAS

Before Commissioners: Michael Lennen, Chairman;
Margalee Wright and
Keith R. Henley

Docket No. 120,924-U

IN THE MATTER OF A GENERAL INVESTIGATION BY THE COMMISSION OF THE PROJECTED COSTS AND RELATED MATTERS OF THE WOLF CREEK NUCLEAR GENERATION FACILITY AT BURLINGTON, KANSAS

Docket No. 142,098-U

84-KG&E-197-R

IN THE MATTER OF THE APPLICATION OF KANSAS GAS AND ELECTRIC COMPANY REQUESTING PROPOSED CHANGES IN ITS CHARGES FOR ELECTRIC SERVICE

ORDER DENYING REHEARING

Now, the above-captioned matters come before the State Corporation Commission of the State of Kansas upon the Applications for Rehearing filed by Kansas Gas and Electric Company (KGE), the Hospital and Industrial Intervenors, and Vulcan Materials Company, Chemical Division (Vulcan).

The Applications for Rehearing were scheduled for oral argument along with the Applications for Rehearing of the other owners and intervenors in the Wolf Creek related dockets. Applicant, KGE, appeared by James Haines and Jonathan Heller, Wichita, Kansas. Applicant, KCPL, appeared by Warren B. Wood, Overland Park, Kansas, and Lowell L. Smithson, Spencer, Fane, Britt and Browne, Kansas City, Missouri. Applicant, KEPCo, appeared by Clifford L. Bertholf, and Phillip Kassebaum, Wichita, Kansas. Applicant, Hospital and Industrial Intervenors, appeared by Thomas M. Van Cleave, Jr., McAnany, Van Cleave & Phillips, Prairie Village, Kansas, and Robert C. Johnson and George Pond, Peper, Martin, Jensen, Maichel and Hetlage, St. Louis, Missouri. Applicant, Vulcan Materials Company, Chemical Division, appeared by Milo M. Unruh, Sr. and Milo M. Unruh, Jr., Arn, Mullins, Unruh, Kuhn & Wilson, Wichita, Kansas. Intervenor, Alliance for Liveable Electric Rates Today, ALERT, appeared by Robert V. Eye, Irigonegaray, Eye & Florez, Topeka, Kansas. Intervenor, Mary Margaret Rogers, appeared by Patrick H. Donahue and William Riggins, Kansas Legal Services, Topeka, Kansas. The Honorable Robert T. Stephan, Attorney General of the State of Kansas, appeared by Carl M. Anderson, Assistant Attorney General, Topeka, Kansas. The Commission staff and the public generally were represented by Brian J. Moline, General Counsel, Robert M. Fillmore, Deputy General Counsel, LuAnn C. Dixon, Assistant General Counsel, John Jay Rosacker, Assistant General Counsel, and Donald A. Low, Director of Utilities, Topeka, Kansas.

The Commission, being fully advised in the premises and having given due consideration to the oral arguments of the parties, finds and concludes as follows:

1. The final order was issued herein on September 27, 1985, pursuant to K.S.A. 66-117. That order was fully responsive to KGE's application for changes in its

charges for electric service, filed November 8, 1984 and amended January 31, 1985.

2. The Commission received KCPL's Application for Rehearing on October 7, 1985. KGE supplemented its application on October 9, 1985. The Commission also received on October 7, 1985, the application of the Hospital and Industrial Intervenors for rehearing. Vulcan's application for rehearing was received October 10, 1985. The applications were timely filed in accordance with K.S.A. 66-118(b).

3. By order issued October 17, 1985, the Commission required oral argument on certain issues with no time limit, and permitted oral argument on the remainder of the issues raised in the Applications for Rehearing subject to a 20 minute time limitation. In that order, the Commission also continued the Applications for Rehearing for 30 days from October 17, 1985, pursuant to K.S.A. 66-118b.

4. The Commission heard oral argument regarding the Applications for Rehearing on Friday, November 8, 1985, beginning at 8:30 a.m., in the Commission's Hearing Room B, Fourth Floor, State Office Building, as scheduled.

5. The Commission, after reviewing its September 27, 1985 order issued herein, finds that the order language at page 39, line 12, regarding PMA finding a 27 month difference in schedule duration to the point of fuel load, is incorrect. The Commission directs that the number "27" in that sentence be changed to read "29" pursuant to the evidence in Exhibit G-Staff-77, Schedule Report, pages 1, 50. Further, at page 100 regarding depreciation rates for Wolf Creek, that order reads "annual interim retirements of 12 percent." That phrase should read "annual interim retirements of 0.2 percent," to correspond to the testimony of witness Mosher, TR. Vol. XVIII, p. 5253, l. 8. These corrections are to typographical errors in the Commission's order.

6. In further reviewing the record in Docket No. 120,924-U, the Commission finds that certain procedural matters must be resolved. In particular, the Commission deferred ruling on the admissibility of Exhibit G-Staff-170, a letter from Mr. Arterburn to Messrs. Fiebach, Cadman and Koester. At this time, the Commission rules that Exhibit G-Staff-170 will not be admitted in evidence.

7. Also, on September 3, 1985, attorneys for intervenor, Mary Margaret Rogers, filed a post hearing brief accompanied by a Motion for an Enlargement of Time within which to file brief. The Commission grants this Motion and accepts the late filed brief of Mary Margaret Rogers in Docket No. 120,924-U.

8. One procedural matter is open still in Docket No. 142,098-U. On September 3, 1985, attorneys for intervenor, Mary Margaret Rogers, filed a post hearing brief in Docket No. 142,098-U accompanied by a Motion for an Enlargement of Time within which to file brief. The Commission grants that Motion and accepts the late filed brief of Mary Margaret Rogers in Docket No. 142,098-U.

9. KGE argues that accumulated depreciation is overstated for the test year period. The Commission's order provides for entries of equal amounts to depreciation expense and accumulated depreciation. Yet plant in service for purposes of depreciation expense includes even that portion of plant determined to be excess capacity, while plant in service for purposes of accumulated depreciation should not include that portion of plant determined to be excess capacity. The Commission has considered the oral arguments on this issue and finds that the accumulated depreciation calculated pursuant to the September 27, 1985 order should be modified to reflect the rate base approved by the Commission with adoption of the excess capacity adjustments. KGE will be allowed to phase-in an additional $2.927 million in its Kansas jurisdictional annual revenues during the third year of the phase-in

plan with additional deferred revenues from the first two years recoverable in the subsequent years pursuant to our September 27, 1985 order.

10. The Commission has considered the arguments of counsel for KCPL that our decisions regarding excess capacity and the valuation of Wolf Creek are preempted by the Atomic Energy Act 42 USCA § 2011 et seq. because they unlawfully intrude into the federal government's exclusive concern for the safe development of nuclear power. We find these arguments contradictory to existing case law holding that the federal government's exclusive authority under the doctrine of preemption is limited to regulation of radiation hazards at nuclear power plants. In all other areas, dual federal and state regulation of public utilities is preserved. *Northern States Power Company v. State of Minnesota*, 447 F.2d 1143 (C.A. 8th Cir. 1971). *Pacific Gas & Electric Co. v. State Energy Resources Conservation and Development Commission*, 103 S.Ct. 1713 (1983).

11. The Commission allows the owners full recovery of their proposed Wolf Creek O&M expenses with the exception of the salary of one employee who is no longer there. In addition, the Commission allows a return of the plant investment found to be excess capacity. Thus, compliance with safety regulations should not be a financial problem for the owners. In addition, there is nothing in the statutes or in constitutional law that the federal government has a constitutional interest in how a utility obtains funding to comply with federal safety requirements regarding nuclear power plants. Our order does not act as a barrier to the federal objective to develop nuclear power. The federal government is concerned with the construction of safe nuclear power plants, not with the construction of nuclear power plants at all costs.

12. The Commission has considered counsel's arguments regarding costs disallowed due to imprudence. We

have re-examined the evidence and our earlier findings and we affirm our disallowance of $37,961,400 attributable to 1,828,262 manhours and $244,561,400 due to controllable schedule delay. We find these costs are due to inefficiency or imprudence in the owners' management practices in the construction of Wolf Creek. This conclusion results from our analysis of the companion reports submitted by Touche Ross and PMA for the staff, as well as the owners' Management Performance Evaluation, Reconciliation Management Summary, and the testimony sponsored by Mr. Huston and Mr. Linderman. The staff reports analyzed the construction management practices and specific areas of cost overruns and schedule delay. We are not persuaded by the owners' reports regarding management performance and the reconciliation process, and the related testimony, that all the construction costs were incurred prudently or efficiently. We also are not persuaded by the design change analysis sponsored by witness Huston that the owners have adequately explained the reasons for schedule extensions. On the contrary, the evidence in the record, including the reports prepared on behalf of the staff by PMA and Touche Ross and the cross-examinations of Mr. Huston and Mr. Linderman, supports our previous findings of costs disallowed due to imprudent or inefficient actions on the part of the owners.

13. Our findings regarding the cost disallowance are also consistent with the legislation in K.S.A. 66-128g(b):

> The portion of the cost of a plant or facility which exceeds 200% of the "original cost estimate" thereof shall be presumed to have been incurred due to a lack of prudence. The Commission may include any or all of the portion of cost in excess of 200% of the "original cost estimate" if the Commission finds by a preponderance of the evidence that such costs were prudently incurred.

14. We find pursuant to this standard that approximately $800,000,000 of the Wolf Creek cost is in excess of 200 percent of the original cost estimate. We cannot find from the preponderance of the evidence in the record that all of the costs in excess of 200 percent of the definitive estimate were prudently incurred. We find that the owners failed to identify, quantify, explain or reconcile substantial increases in costs. Therefore, the owners have not met their burden imposed by the legislature of presenting substantial, competent evidence to the Commission that costs in excess of 200 percent of the original cost estimate were prudently incurred. As Mr. Linderman testified, it was not the purpose of the reconciliation process to analyze management prudence regarding construction of Wolf Creek. Furthermore, our examination of Mr. Huston's analysis and testimony regarding industry average comparisons does not lead us to the conclusion that all of the costs over 200 percent of the definitive estimate were prudently incurred. Comparison of management performance at Wolf Creek to a statistical average of several variables for other selected projects is a meaningless exercise absent evidence of management prudence at the projects being used as a standard. Such a comparison fails to prove that all of the construction costs at Wolf Creek were prudently incurred, or that management decisions at Wolf Creek were appropriate. On the other hand, examination of management performance at Wolf Creek reveals that inappropriate decisions and inefficient actions were present. We find no inconsistency in rejecting the owners' use of such industry statistics for determining overall performance, and adopting the use of an average unit rate to calculate a manhour factor in controllable schedule slippage. Unit rates for particular activities would be comparable throughout the industry. We affirm our earlier findings regarding the qualitative and quantitative analyses of Wolf Creek construction cost and schedule.

15. In its application for rehearing, KGE made numerous contentions concerning the Commission's adoption of risk sharing principles and the valuation of Wolf Creek at $1290/KW. Oral arguments were heard on the company's contentions that the Commission's order is unlawful, unreasonable and arbitrary in this regard. Among other points, the company argues that K.S.A. 66-128g, upon which the Commission relied, does not authorize consideration of economic and risk factors for valuation of rate base. The factors listed in that statute are argued to be intended only for use in making a prudence determination, after which plant investments should be valued at original cost. The company argues that since the Commission may only exercise authority delegated to it by the legislature, the valuation of Wolf Creek at less than original cost is beyond its authority and confiscatory.

16. The Commission has carefully considered its findings in light of Applicant's arguments and still believes its findings to be sound, reasonable and lawful. In our September 27, 1985 order we found that K.S.A. 66-128g "compels consideration of the economics of a plant in determining the reasonable value of a rate base addition." Although Applicant may be correct that that statute does not explicitly require consideration of the listed economic factors in determining valuation, we believe that the legislature did intend that those factors be considered in arriving at a fair and reasonable result. Furthermore, the inclusion of risks accepted by the utility as a factor in K.S.A. 66-128g, suggests some legislative recognition that utilities do accept risks for ratemaking purposes. Although that factor and eleven others may be primarily aimed at a prudence determination, we do not believe they are limited to that narrow purpose.

17. As staff noted in its argument, the Commission has broad authority under K.S.A. 66-101 to "do all things necessary and convenient for the exercise of . . . power,

authority and jurisdiction" to supervise and control public utilities. The powers granted to the Commission are to be liberally construed pursuant to K.S.A. 66-141 and have been so construed by the courts. *E.g., Sunflower Pipeline Co. v. Kansas Corporation Commission*, 5 K.A.2d 715, 624 P.2d 466 (1980). This liberal construction is necessary to insure that utilities provide reasonably efficient and sufficient service pursuant to K.S.A. 66-107. Staff observes that risk sharing is not, in fact, a recent regulatory innovation, but that it has been embodied in many, if not most, actions taken by Commissions in a rate case. We believe staff is correct. It is often observed that regulation is a surrogate for competition and that the goal of regulation is to attempt to produce results similar to those which would be produced in the competitive marketplace. In our September order, we noted that this analogy to the free marketplace has limitations, but certainly regulation can and does continually balance the interests of utility shareholders and ratepayers. This balancing occurs whenever a commission disallows a cost or expense, although it may actually have been incurred, because it is unreasonable to have ratepayers bear that cost or expense. Utilities, consequently, have always faced the risk that costs would be disallowed and that they would ultimately be borne by shareholders. Several specific examples illustrate that this has been recognized as a valid regulatory principle.

18. Staff noted that the court in *Kansas Gas & Electric v. State Corporation Commission*, 218 Kan. 670, 544 P.2d 1396 (1976) quoted with approval the general principle of utility law that a utility company "must bear the burden of an unreasonable extension of its plant and the risk that portions of it prudently acquired may become obsolete, or not useful." It thus appears that assumption of risk was recognized as a valid concept by that court, at least with regard to physical excess capacity. It is, of course, that court decision which prompted passage of House Bill 2927 (K.S.A. 1984 Supp.

66-128 *et seq.*), which was apparently intended to broaden further this Commission's authority.

19. There are other traditional adjustments made by commissions which have the effect of limiting the amount of costs allowed for determining revenue requirements. For example, most commissions do not generally allow plant acquired from another utility to be included in rate base at an acquisition cost higher than original cost without a showing of benefits to ratepayers. *See e.g. Southwestern Bell Tel. Co. v. State Corporation Commission*, 192 Kan. 39, 67; 386 P.2d 515 (1963); *In Re Plateau Natural Gas Company*, 27 PUR 3d 447 (1959). Although the primary rationale for such disallowances is to prevent inflation in the value of property which was dedicated to public service at original historical cost, the broader purpose of interest here is to insure a reasonable and efficient valuation of property in rate base. It is obviously not economically efficient to permit an increased valuation in property simply due to a change in ownership accomplished by a purchase price in excess of original cost less depreciation.

20. Staff also cited *Sekan Electric Coop Ass'n. v. Kansas Corporation Commission*, 4 K.A. 2d 477; 604 P.2d 188 (1980) in its arguments. The Court of Appeals in that case approved the use of a hypothetical capital structure quoting a treatise on utility regulation:

> It must be kept in mind, of course, that the regulatory commission does not have the actual authority to revise a utility's capital structure, per se, or to order the utility to change it into a different setup. That is a prerogative of management which cannot be superseded by the substitution of regulatory opinion-that is to say, how much debt should be incurred or common stock issued.
>
> It is solely in the area of assuming what effect a different or more desirable capital structure would

have on the cost of capital, if it were adopted, that the regulatory judgment may function. As a practical matter, of course, such a hypothetical assumption of an ideal or optimum capital structure, as distinguished from that which actually exists, may have the same dollars-and-cents results, as far as the return allowance is concerned, as an actual change in the capital structure. In other words, the regulatory authority may say to the utility company, in effect: 'We find that if the debt to equity ratio were different from what it actually is, your capital costs would be lower, so therefore we will consider the cost of capital just as if the capital structure were different, in making the return allowance.'

This distinction between the function of management and that of the regulator has been succinctly stated by the Maryland court of appeals in a recent decision [C.&P. Tel. Co. v. Public Service, 230 Md. 395, 187 A.2d 475 (1963)] wherein it was said that the owners and management of a utility have the right to determine what the debt-equity ratio should be, but they may not always make the ratepayers foot the bill resulting from the choice.
4 K.A. 2d at 480.

21. Use of a hypothetical capital structure thus appears to have been sanctioned by the Court as a means of having ratepayers pay only the costs associated with a more "desirable," "ideal" or "optimum" alternative as opposed to that "which actually exists." Our treatment of Wolf Creek, of course, is not an attempt to replicate precisely the results of an optimum situation, but merely that of a reasonable one. The Kansas court is not alone in approving the use of a hypothetical capital structure. In *Southern Bell Telephone and Telegraph Company v. Louisiana Public Service Commission*, 239 La. 175, 118 So. 2d 372, 32 PUR 3d 1 (1960), the Louisiana Supreme Court noted that the hypothetical capital structure "has

been almost universally adopted in those states where there is no formula prescribed by constitutional provisions or statutes for determination of a rate base." 32 PUR 3d at 11. After citing some eighteen jurisdictions in which courts or commissions had adopted the approach, the Court quoted from a Connecticut Commission decision that:

> In common with other operating companies of the Bell System, the Southern New England Telephone Company has consistently attempted to maintain a low debt ratio. It is manifest that the realities of the federal corporation tax structure make such a low ratio an expensive luxury, which must be borne by the ratepayers. This is so because interest on debt securities is tax deductible, but dividends on stock are not so deductible. Consequently, a lower debt ratio requires higher revenues for servicing of the stock of the company. This commission recognizes the fact that debt financing requires less revenues from ratepayers than equity financing and concludes that ratepayers should not be penalized by management's decision to maintain an unduly low debt ratio.

22. These cases certainly illustrate the fact that regulatory commissions are not bound by utility management decisions when ratepayers would be unduly penalized by the results and that the commission may substitute, for ratemaking purposes, a hypothetical with more reasonable results.

23. In its argument, staff also cited several Commission decisions which held that shareholders should bear part of the costs of plants which had been cancelled or represented excess capacity. In *Re Otter Tail Power Company*, 44 PUR 4th 219 (1981); *In Re Carolina Power and Light Company*, 49 PUR 4th 188 (1982); *Pennsylvania Public Utility Commission v. Pennsylvania Power Co.*, 27 PUR 4th 426 (1978). Those Commission orders

explicitly termed their decisions as adopting risk sharing principles, as have we. However, as discussed above, the Commission does not believe that the underlying concept is new or novel. Risk sharing is simply one way of charaterizing a means by which commissions fulfill their obligation to insure just and reasonable rates and sufficient and efficient service.

24. Although we conclude, therefore, that the Commission is legally empowered by its general statutory authority to adopt a risk sharing approach, we should also specifically address the company's contentions concerning K.S.A. 1984 Supp. 66-128g. As noted above, that statute was enacted as part of H.B. 2927, which was intended to broaden the Commission's authority to address excess capacity situations. Whether and how much that bill actually increased Commission authority may be arguable. It is clear, however, that that law gives an additional emphasis to economic efficiency in determining valuation of utility property. As previously noted, K.S.A. 1984 Supp. 66-128g, lists several economic factors for the Commission to consider. K.S.A. 1984 Supp. 66-128c also explicitly empowers the Commission, "in determining the reasonable value of property under K.S.A. 66-128, and amendments thereto, . . . to evaluate the *efficiency* or prudence of acquisition, construction or operating practices of that utility." (Emphasis added.) In accordance with that legislative direction, the Commission did consider economic efficiency of the Wolf Creek plant and the electric service it provides. We found that full rate base inclusion of the plant was not economically efficient and that the approach we took was necessary to insure reasonable rates. Consequently, we remain convinced that sharing of risks between ratepayers and shareholders by limiting return on a reasonable valuation of Wolf Creek is reasonable and within the Commission's authority.

25. It is interesting to note that Applicant has not suggested abuse of authority by the Commission in de-

termining that the risk sharing principle should apply to the physical excess capacity findings as well as the economic excess findings. We found in our September order that risks were appropriately shared by not allowing a return on both the physical and economic excess portions of Wolf Creek but allowing a return of those costs. K.S.A. 66-128c, of course, clearly allows the Commission to "exclude all or a portion" of excess capacity costs from the revenue requirements of a utility so that not only the return on those costs but also the return of those costs may be disallowed. Although such an alternative was available, the Commission believes that the approach taken is more appropriate. As reflected in the prior order, the Commission considered the concerns for fuel diversity which prompted construction of Wolf Creek in determining that return of the investment was appropriate. This, however, was premised on no return on that portion of Wolf Creek which exceeded a reasonable valuation since we believe that the risks to be shared involve both the amount and cost of capacity resulting from the generation facility.

26. The Commission's order setting the applications for rehearing for oral argument requested argument on whether the findings valuing Wolf Creek at coal plant costs were legally sufficient. The company contends that there was no support in the record to base a valuation on the cost of a coal plant. To the contrary, the method of comparing Wolf Creek costs to those of a coal plant was a basis for the owner utilities decisions to build and continue construction of Wolf Creek. For example, KGE and KCPL both performed at various times a levelized bus bar energy cost comparison for Wolf Creek and coal facilities. A series of such comparisons performed by KCE from 1976 to 1980 consisted of the levelized bus bar costs for nuclear and coal facilities for a ten year period. Although we discussed the deficiencies of the specific studies in our September order, the general

concept of comparing nuclear and coal costs to determine their relative economics is sound.

27. In calculating the valuation of Wolf Creek, the Commission took an approach very similar to the levelized bus bar analysis performed by the companies. Rather than translating the relevant costs to a figure per kilowatt hour, however, the Commission approach translated the costs into capital costs per kilowatt of capacity. Although this was not the precise methodology used by the companies, it cannot be contended that the Commission is bound to use only the exact methods contained in the testimony and exhibits. It is clear that the Commission may use its own judgment to determine a reasonable result. *See, Union Gas System, Inc. v. Kansas Corporation Commission*, 8 K.A. 2d 583, 663 P.2d 304 (1983).

28. In addition to the company studies, the record also contains the studies performed by staff witness Rosen and intervenor witness Komanoff, which were life cycle cost comparisons of nuclear and coal plants. As discussed in the September order, we chose not to rely on their specific studies due to the myriad of projections and assumptions required. It is interesting to note, however, that our approach results in a revenue requirement which falls within the range of that advocated by staff and the recommendation of witness Komanoff for inclusion in rate base of 7% of Wolf Creek. We also find it noteworthy that in this Commission's 1980 order granting a conditional certificate to KEPCo for purchase of a share of Wolf Creek, the Commission attempted to place a ceiling on the purchase price. That maximum was based on KEPCo's percentage share of the then estimated $1.5 billion Wolf Creek cost or approximately $1,300 per kilowatt. That estimate included the projected impacts of inflation on the final construction costs. That figure, we believe, compares favorably with the $1,290 figure we determined in September. Indeed, when this comparison came to our attention, we were pleased at the similarity

of the conclusions, considering the different contexts from which they arose. Any notion that the Commission is now engaged in "hindsight" regulation should be dispelled by the fact that the value we found reasonable for a prospective owner of Wolf Creek five years ago is remarkably close to the reasonable value determined in September. If it had come to the Commission's attention previously, we might well have used the $1300 per KW figure as an additional benchmark in this case. In any event, it reinforces our belief that $1290 is a reasonable figure.

29. Finally, the Commission requested argument on whether rehearing should be held to consider other methods for valuing Wolf Creek. The company opposed such a possibility. Staff argued that other methods such as avoided cost pricing or market rates could be considered which might result in even lower rates. Staff suggested, however, that this did not imply that the Commission decision was unreasonable. We agree that consideration of other approaches could result in a different result which might also be reasonable. We are, however, comfortable with our initial decision. As noted in the leading court case of *Power Comm'n v. Hope Gas Co.*, 320 U.S. 591, 602, 88 L.Ed. 333, 64 S. Ct. 281 (1944), "[I]t is the result reached and not the method employed which is controlling. . . . It is not theory but the impact of the rate order which counts." We believe the result of our decision is just and reasonable.

30. One contention made by the company is that the determination of the $1,290/KW figure was not based on evidence in the record and was not set forth with mathematical precision so that no opportunity has been afforded to test the validity of the calculations. On oral argument KCPL did argue that its review of the calculations obtained from the Commission staff suggested that the generation cost savings determination was improper since it was only based on the first year of Wolf Creek opera-

tions. KCPL suggested that greater savings would occur subsequently and should be reflected in the Commission's determination.

31. Staff argued that the precise mathematical calculations need not be set out in the order any more than calculations of the other adjustments made or adopted by the Commission. Staff also argues that it is appropriate to reflect only the current generation costs and that projecting future generation cost savings would amount to the life cycle analysis which the companies severely criticized when performed by staff witness Rosen.

32. The Commission believes that the calculations were adequately set forth in the September order but will spell out further details below. In addition, we see no significant deficiencies in the $1,150-$1,250 range of coal plant capital costs chosen from those contained in the record. As noted by staff, that range was not intended to replicate the capital costs which would have been incurred had Wolf Creek been cancelled nor what would have been the optimal capacity construction plan from the beginning. We are simply determining a reasonable value for a coal facility for purposes of setting rates for the immediate future. In this regard, the Commission is troubled that KCPL now suggests that the calculation of generation cost savings of Wolf Creek over a coal plant should include long-term projections. As noted above, our approach was adopted in part because of the companies' arguments that long-term life cycle analysis of the overall economics of Wolf Creek relative to coal facilities was too speculative. The near term approach we have taken has the benefit of not requiring the kinds of estimates KCPL now apparently suggests are desirable. We fail to see why long term estimates are appropriate for this calculation which will be subject to future adjustments and is not intended as a long-term cost analysis. Nor do we see merit in the argument that potential future adjust-

ments in the $1,290 valuation are inadequate since they cannot apply retroactively. As noted in adopting our approach, one consideration was that of intergenerational equity. If, in fact, Wolf Creek turns out to be of greater economic value to ratepayers in the future, those future ratepayers will pay more of the costs associated with that value.

33. As noted in the September order, the starting point of our calculation was determination of the generation costs for KG&E and KCPL coal plants. As obtained from Exhibit G-Staff-127, the generation costs include not only fuel expenses but also operational and maintenance expenses as reported on FERC Form 1 Reports. The same types of expenses for Wolf Creek were taken from KG&E's Application, Section B, Schedule 4 with the addition of the decommissioning costs found appropriate by the Commission elsewhere in the order. This resulted in total production related costs of $42,084,018. In order to properly match, this cost was divided by the kilowatt hour production estimate upon which the generation expenses were based. As supplied by KGE to staff in a data request, this figure was 2,664 GWH.

34. The difference in per kwh costs for the coal facilities and Wolf Creek was then multiplied by the estimated annual Wolf Creek kilowatt hours of 6,064,986,000 based on a capacity factor of 61 percent and a 1,135 megawatt capacity as suggested in KGE's brief. Since KGE now claims a capacity of 1,128 MW for Wolf Creek, the 1,135 figure is conservative. The resulting generation cost savings on an annual basis were then translated into capital costs by applying an annual fixed charge rate of 22 percent based on the cost of capital, income tax effects, depreciation, property tax and insurance rates found appropriate for the companies.

35. We have reexamined the above method for calculating the generation cost savings in light of the various deficiencies alleged by the company and still find it reason-

able, especially given the fact that future capital additions were not included in the Wolf Creek costs and that older vintage coal plants were included in determining the coal generation costs.

36. Applicant KGE argues that the Commission order phasing-in part of the revenue requirement over time is unlawful because such phase-in violates the statutory authorization found in K.S.A. 66-128(b). According to Applicant, K.S.A. 66-128(b) authorizes only the phase-in of ". . . reasonable value of property determined not currently used or required to be used." The company argues that a revenue deficiency of $166,653,463 was determined and that the Commission is obligated to allow an opportunity to earn the revenue requirement once the "used and useful" test has been passed, subject only to any voluntary phase-in. In effect, the company argues that K.S.A. 66-128, *et seq.*, is the sole authority for phase-in of revenue requirement and that the reasonable value of property that meets the "used and required to be used" test must be allowed unless the company requests phase-in. Should the company request phase-in, the argument goes, the Commission's decision is limited to whether to accept the terms and conditions of the phase-in that the company proposes.

37. Such a constrained and restrictive view of the Commission's authority to phase-in is erroneous. It should be noted at the outset that phase-in is not an exercise in determining *what* investment related costs are but *how* investment related costs are to be recovered. Contrary to Applicant's assertion, there is no negative implication in K.S.A. 66-128, *et seq.*, suggesting no authority to phase-in rates outside of the used and required to be used test.

38. Indeed, K.S.A. 66-128(b) specifically states:

> ". . . Nothing in this act shall limit the Commission's authority to set just and reasonable and *efficient* rates. . ." (emphasis added.)

39. Moreover, the organic enabling legislation in Chapter 66 envisions broad latitude for the Commission to set rates both by virtue of the "necessary and proper" clause in K.S.A. 66-101 and "just, reasonable and *efficient*" rate clause of K.S.A. 66-107. "Efficient" is an elastic regulatory term that encompasses both economic efficiency as well as technical and scientific efficiency. This point is made in a 1983 decision of the *Illinois Commerce Commission*, 56 P.U.R. 4th 361. Iowa-Illinois Gas and Electric proposed a seven-year phase-in, at full investment, of the Louisa Generating Station. The Illinois Commission approved plan deferred portions of equity return, depreciation and tax credit. The Illinois Commission noted that phase-in was a departure from traditional regulatory practice, however, there was an affirmative obligation to consider economic efficiency in setting rates:

> "By phasing-in the rate increase, the utility prices would more closely reflect the true economic costs of capacity and therefore promote a more *efficient* allocation of resources" (Emphasis supplied.)

40. See also *Southern California Edison*, 64 P.U.R. 4th 486, where California PUC held no legal prohibition preventing adoption of trended rate base.

41. In requesting phase-in of rates in its application, Applicant KGE recognized the detriment to both the utility and the customers in a sudden, abrupt rate increase. The transcript in the instant case is replete with evidence from staff, Applicant, intervenors and public witnesses as to the potentially devastating economic effect of "rate shock" on the community and on the company as well due to price elasticity of demand.

42. Second, it is manifestly clear the company suffers no financial harm as a result of the phase-in since the plan provides for recovery of the deferred amount as well as return on it. The company will, therefore, recover

its investment. However, the timing of that recovery is an appropriate regulatory consideration and the Commission has the authority and even obligation to make an independent analysis of all relevant considerations and to consider the economic efficiency of rates in reaching an overall decision.

43. K.S.A. 1984 Supp. 62-128(g)(a)(9) requires consideration of whether resulting rates of a new facility in rate base "will have an adverse impact upon the people of Kansas." It is clear from the testimony of Witnesses Palast, Boyd, Drazen, Langemeir and myriad public witnesses that a phase-in of Wolf Creek is necessary to mitigate a significantly adverse impact on ratepayers and the economy of Kansas.

44. Applicant cannot seriously argue that phase-in of rates to attempt to mitigate the potentially drastic economic consequences so tellingly testified to in this case in solely a matter of management prerogative. This Commission has an obligation to consider the economic efficiency of rates. Under the statutory standard of just and reasonable, it is the result reached, not the method employed, which is controlling. *Sekan Electric Co-op Assn. v. KCC*, 4 Kan. App.2d 481 (1980). Here, the end result is a phase-in which does not financially harm Applicant and may actually help both Applicant and customer mitigate the effect of rate shock.

45. During oral arguments the Hospital and Industrial Intervenors presented arguments concerning the elimination of the tail block demand charges for the High Load Factor (HLF) class. Counsel for KGE responded by noting that the Application of the Hospital and Industrial Intervenors for Rehearing had previously been denied by the Commission and the oral argument on the issue was improper. KGE is technically correct. The application for rehearing was denied on the procedural question of whether the tariffs submitted by KGE were in compliance with the September order. After hearing the arguments

of the intervenors, however, the Commission on its own motion reconsidered the merits of the additional demand discount winter rates which were approved. Although we still believe that the concept of giving some discount for winter demand above the previous summer peak demand in order to promote winter sales has merit, the manner in which it was implemented in this case may cause some unacceptable results. As approved this "peak additional" rate was implemented for certain rate classes by elimination of prior rate blocks or seasonal differentials. This has the potential and unintended result of increasing disproportionately the charges paid by some customers within these rate classes. In the case of intervenor Boeing, it is estimated to have an annual impact of around $400,000. To rectify this inequitable result the Commission directs KGE to submit new tariffs which reinstitute the rate blocks and seasonal differential in the affected rate classes—General Service, High Load Factor and General Service Total Electric. Such rates shall reflect the average increase per class ordered previously and shall properly reflect migration adjustments. Additionally, the Large General Service rate shall be filed such that it appropriately reflects any migration changes resulting from the above rate changes. Revised rates shall be submitted for approval within thirty (30) days. If the company and staff can agree on tariffs which incorporate the additional winter excess demand concept without producing inequitable results, such tariffs may be submitted for approval.

46. The Commission has also considered the other arguments on rate design issues raised by intervenors. We believe those arguments were fully considered originally and see no need for rehearing on those issues. Those applications should therefore be denied.

47. The Commission, having re-examined our order issued September 27, 1985, in the above captioned dockets, and having considered the oral argument of counsel, finds

no substantial error in its order, other than that denoted above. The Commission specifically reaffirms all findings of fact and conclusions of law set forth in our September 27, 1985 order referenced above, with the additions and modifications set forth herein. The Commission concludes that said order, as modified and supplemented herein, should be affirmed, and that the applications for rehearing should be denied.

IT IS, THEREFORE, BY THE COMMISSION ORDERED THAT:

The Applications for Rehearing filed by KGE, the Hospital and Industrial Intervenors, and by the Vulcan Materials Company, Chemical Division in October 1985, in the above captioned dockets, are denied.

IT IS FURTHER ORDERED THAT:

The Commission's decision issued September 27, 1985, in the above captioned dockets is affirmed, as modified and supplemented herein.

Lennen, Chmn.; Wright, Com.; Henley, Com.

Dated: November 15, 1985

/s/ Judith McConnell
JUDITH MCCONNELL
Executive Secretary

LCD:rh

APPENDIX E

Order Denying Application for Rehearing (KG&E)

THE STATE CORPORATION COMMISSION
OF THE STATE OF KANSAS

Before Commissioners: Michael Lennen, Chairman;
Margalee Wright
Keith R. Henley

Docket No. 120,924-U

IN THE MATTER OF A GENERAL INVESTIGATION BY THE COMMISSION OF THE PROJECTED COSTS AND RELATED MATTERS OF THE WOLF CREEK NUCLEAR GENERATION FACILITY AT BURLINGTON, KANSAS

Docket No. 142,098-U
84-KG&E-197-R

IN THE MATTER OF THE APPLICATION OF KANSAS GAS AND ELECTRIC COMPANY REQUESTING PROPOSED CHANGES IN ITS CHARGES FOR ELECTRIC SERVICE

ORDER DENYING APPLICATION FOR REHEARING

Now, the application for rehearing filed by Kansas Gas and Electric Company (KG&E) on November 25, 1985, comes on for consideration and determination by the State Corporation Commission (Commission). Upon examining the application and upon being otherwise duly informed and advised in the premises, the Commission finds and concludes as follows:

1. The final order was issued herein on September 27, 1985, pursuant to K.S.A. 66-117. That order was fully

responsive to KG&E's application for changes in its charges for electric service, filed November 8, 1984, and amended January 31, 1985.

2. The Commission received an application for rehearing from KG&E on October 7, 1985. KG&E supplemented its application on October 9, 1985. The Commission also received on October 7, 1985, the application of the Hospital and Industrial Intervenors for rehearing. Vulcan Materials Company, Chemical Division's (Vulcan) application for rehearing was received October 10, 1985. The applications were timely filed in accordance with K.S.A. 66-118(b).

3. By order issued October 17, 1985, the Commission required oral argument on certain issues with no time limit, and permitted oral argument on the remainder of the issues raised in the applications for rehearing subject to a twenty (20) minute time limitation. In that order, the Commission also continued the applications for rehearing for thirty (30) days from October 17, 1985, pursuant to K.S.A. 66-118(b).

4. The full Commission heard oral argument regarding the applications for rehearing on Friday, November 8, 1985, beginning at 8:30 a.m., in the Commission's Hearing Room B, Fourth Floor, State Office Building, as scheduled. Thereafter on November 15, 1985, the Commission issued its Order Denying Rehearing, in which the Commission denied the application for rehearing filed by KG&E, as well as the applications for rehearing filed by the Hospital and Industrial Intervenors and Vulcan, respectively. In that order, the Commission corrected several typographical errors contained in its September 27, 1985 order, ruled on certain procedural matters that remained open, and discussed several of the Applicants' arguments in detail explaining why the arguments were not persuasive and the applications were denied.

5. On November 25, 1985, KG&E filed with the Commission its application for rehearing of the Commission's September 27, 1985 order (original order) and the Order Denying Rehearing, issued November 15, 1985 (modified order). KG&E explained in its application that it applied for rehearing of the orders because the Commission's Order Denying Rehearing also included provisions that modify and supplement the original order and thus KG&E believes there is some ambiguity about whether rehearing has been denied entirely, or whether rehearing was granted and a new order issued regarding some portions of the original order. Therefore, KG&E restated all grounds for granting a rehearing which it believes apply to the original order, modified the grounds that no longer apply to the original order, and added grounds for granting a rehearing of the modified order in its application for rehearing filed November 25, 1985.

6. The Commission has fully considered KG&E's application for rehearing, and has reviewed its orders issued September 27, 1985, and November 15, 1985, herein. The Commission finds no substantial error in its September 27, 1985 order, other than that noted in its November 15, 1985 order. The Commission finds no substantial error in its November 15, 1985 order. The Commission finds two typographical errors in its order issued November 15, 1985, herein. At page 17, paragraph 33 of the order, reference is made to Section "B" of KG&E's application for a rate increase. Section "B" shall be changed to read Sect~~ion~~ "8". Also at page 2, paragraph 2, reference is made to "KCPL's Application for Rehearing". That reference shall be changed to read "KG&E's Application for Rehearing." The Commission specifically reaffirms all findings of fact and conclusions of law set forth in the September 27, 1985 order, with the additions and modifications set forth in the November 15, 1985 order. The Commission concludes that the September 27, 1985 order, as modified and supple-

mented in the November 15, 1985 order, should be affirmed, and that the application for rehearing should be denied.

IT IS THEREFORE, BY THE COMMISSION ORDERED THAT:

The application for rehearing filed by KG&E on November 25, 1985, in the above-captioned dockets, is denied.

IT IS FURTHER ORDERED THAT:

The Commission's decision issued September 27, 1985 and modified and supplemented November 15, 1985, in the above-captioned dockets, is affirmed.

Lennen, Chmn.; Wright, Com., Henley, Com.

Dated: November 27, 1985

/s/ Judith McConnell
JUDITH MCCONNELL
Executive Secretary

SEAL

/s/ LCD
LCD:rh

APPENDIX F

Order of the Kansas Corporation Commission (KCPL)

THE STATE CORPORATION COMMISSION
OF THE STATE OF KANSAS

Before Commissioners: Michael Lennen, Chairman;
Margalee Wright and
Keith R. Henley

Docket No. 120,924-U

IN THE MATTER OF A GENERAL INVESTIGATION BY THE COMMISSION OF THE PROJECTED COSTS AND RELATED MATTERS OF THE WOLF CREEK NUCLEAR GENERATION FACILITY AT BURLINGON, KANSAS

Docket No. 142,099-U
84-KCPE-198-R

IN THE MATTER OF THE APPLICATION OF KANSAS CITY POWER & LIGHT COMPANY REQUESTING PROPOSED CHANGES IN ITS CHARGES FOR ELECTRIC SERVICE

ORDER

NOW, the above captioned matters come before the State Corporation Commission of the State of Kansas for consideration and determination of the application of Kansas City Power and Light Company (KCPL, or Applicant), for approval of changes in its charges for electrical service. Chairman Michael Lennen, Commissioner Margalee Wright, and Commissioner Keith R. Henley presided at the hearing on the application.

Having considered the evidence and testimony, the files and records and being fully advised in the premises, the

Commission's findings and conclusions are set forth herein below.

I. APPEARANCES

1. The following parties entered appearances in the above captioned matters.

For the Applicant, KCPL,

Mr. Warren B. Wood
Legal Counsel
Kansas City Power and Light Company
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Overland Park, Kansas 66214

Mr. A. Drue Jennings
Mr. Mark C. Sholander
Mr. Mark G. English
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Kansas City, Missouri

For Kansas Gas and Electric Company (KG&E),

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Mr. Jonathan Heller
Mr. John DeCoursey
Kansas Gas and Electric Company
201 North Market Street
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Wichita, Kansas 67201

Mr. Gerald T. McNeive
Kansas City, Missouri

Mr. Edgar Roach
Raleigh, North Carolina

Mr. Richard Gary
Mr. Lawrence Skinner
Richmond, Virginia

For Kansas Electric Power Cooperative, Inc. (KEPCo),

Mr. Phillip Kassebaum
Mr. Clifford Bertholf
Kassebaum & Johnson
Attorneys at Law
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For the Kansas Corporation Commission Staff and public generally,

Mr. Brian Moline
Mr. Robert Fillmore
Mr. Don Low
Ms. LuAnn Dixon
Mr. Dana Gorman
Mr. John Rosacker
Mr. Kirby Vernon
Mr. Brad Bailey
Ms. Mary Ann Neath
Kansas Corporation Commission
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Legal Department
Topeka, Kansas 66612

For the Intervenor,
Office of the Attorney General,

Mr. Robert T. Stephan
Attorney General

Mr. Wayne Hundley
Mr. Carl M. Anderson
Assistant Attorney Generals
Consumer Protection Division
and Antitrust Division
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Topeka, Kansas 66612

Dr. Malcolm R. Burns
Lawrence, Kansas

For the Intervenor,
Alliance for Liveable Electric Rates, ALERT,

Mr. Robert V. Eye
IRIGONEGARAY, EYE & FLOREZ
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For the Intervenor,
Electric Shock Coalition,

Mr. Steven M. Dickson
Ms. Judy A. Pope
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For the Intervenor,
Vulcan Materials Company, Chemical Division,

Mr. Milo M. Unruh, Sr.
Mr. Milo M. Unruh, Jr.
ARN, MULLINS, UNRUH, KUHN & WILSON
Attorneys at Law
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Wichita, Kansas 67202

For the Intervenor,
Kansas Power and Light/Gas Service Company, (KPL/Gas Service Company)

Mr. John K. Rosenberg
Kansas Power and Light Company
Legal Department
818 Kansas Avenue
Topeka, Kansas 66601

Mr. David Claycomb,
Kansas City, Missouri

For the Intervenor,
Mary Margaret Rogers,

Mr. Patrick H. Donahue
Kansas Legal Services
112 West Sixth Street
Topeka, Kansas 66603

For the Intervenor,
Kansas Independent Oil and Gas Association, (KIOGA),

Mr. Donald P. Schnacke
Kansas Independent Oil and Gas Association
1400 Merchants National Bank Building
Topeka, Kansas 66614

Mr. Jack Glaves
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Wichita, Kansas 67202

For the Intervenors,
Electro Dynamics, Inc., and Thermo Dynamics, Inc.,

Richard C. Byrd
James G. Flaherty
P.O. Box 7
Ottawa, KS 66067

For the Intervenors,
St. Francis Hospital of Wichita, Inc., Boeing Military Airplane Company, Ash Grove Cement Company, Beech Aircraft Corporation, Coleman Company, Derby Refining Company, Farmland Industries, General Portland Cement Company, Hesston Corporation, Monarch Cement Company, Texaco Refining and Marketing, Inc., and Total Petroleum, Inc., (Hospital and Industrial Intervenors Group),

Mr. Thomas M. Van Cleave, Jr.
McANANY, VAN CLEAVE & PHILLIPS
Attorneys at Law
112 Village Professional Building
Prairie Village, Kansas 66208

Mr. Robert C. Johnson
Mr. George Pond
PEPER, MARTIN, JENSEN, MAICHEL
and HETLAGE
Attorneys at Law
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For the Intervenors,
City of Overland Park; City of Lenexa; City of Mission; City of Merriam; City of Countryside; City of Roeland Park; Johnson County Board of County Commissioners; Shawnee Mission School District; Blue Valley School District; Olathe School District; Johnson County Community College; Johnson County Industrial & Commercial Energy Users Groups comprised of BayVet, Division of Miles Laboratories; Coca Cola Bottling Company of Mid America; Grinsted Products, Inc.; Hoover Universal; King Radio; J.C. Penney Catalog Center; J.A. Peterson Realty Company; (Johnson County Joint Intervenors Group)

Mr. C. Edward Peterson
HAMILL, NEILL & DWYER
Attorneys at Law
5809 Reeds Road
Mission, Kansas 66202

For the Intervenors,
City of Wichita, Kansas; City of Clearwater, Kansas; City of Derby, Kansas; City of Goddard, Kansas; City of Garden Plain, Kansas; City of Cheney, Kansas; City of Potwin, Kansas and City of Whitewater, Kansas,

Mr. John Dekker
Mr. Joe Allen Lang
Office of the City Attorney of Wichita, Kansas
Department of Law
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For the Intervenor,
Johnson County Community College,

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Attorney at Law
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Prairie Village, Kansas 66208-0030

For the Intervenor,
NCK Electric Cooperative, Inc.

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Belleville, Kansas 66935

2. Four hundred seventy-seven (477) members of the public generally appeared on their own behalf and on the behalf of others at 19 public hearings conducted between June 4 and June 20, 1985. A complete list of those who testified at the public hearings is attached hereto as an Appendix.

II. INTRODUCTION

1. This order concerns two interrelated dockets, 120,-924-U and 142,099-U, both of which relate to commercial operation of the Wolf Creek Generating Station (WCGS). In order to determine whether the WCGS was fully operational and dedicated to commercial service, the Commission established in-service criteria. The owners of the WCGS, through their operating agent, KG&E, affirmed by affidavit, the in-service criteria had been satisfied and declared the WCGS to be in commercial service as of 1:16 a.m., September 3, 1985. Staff confirmed by affidavit filed September 10, 1985, that the aforementioned in-service criteria had been satisfied and that the WCGS should be considered in-service at the date and time attested to by the owner utilities.

2. Docket No. 120,924-U was created in 1979 for the purpose of initiating a "general investigation of the projected costs and related matters of the Wolf Creek Nuclear Generating Facility at Burlington, Kansas." One of the primary functions of the general investigation docket was to allow staff to begin collecting data relevant to the anticipated Wolf Creek related rate applications so that staff's investigation would not have to be completed within the 240 day suspension period prescribed by K.S.A. 66-117 for the investigation and hearing of rate applications and the issuance of a final order.

3. Docket No. 142,099-U was created on November 8, 1984, upon the filing by KCPL of its application requesting proposed changes in its charges for electric service based upon, *inter alia*, the commercial operation of Wolf Creek. KCPL amended its application on January 31, 1985. Both the original and the amended application request Commission approval of a one time increase in revenues of $90.5 million, or, in the alternative, a $110.6 million revenue increase to be phased in over a four year period.

Year	Revenue Increase
1	$45.3 million
2	$30.7 million
3	$20.0 million
4	$14.6 million

4. The fourth year increase would remain in effect for an additional fifth year to complete the phase-in plan.

5. KG&E and KEPCo also applied for approval to increase their rates for electric service due to the commercial operation of Wolf Creek. Docket No. 142,098-U was created on November 8, 1984, upon the filing by KG&E of an application requesting proposed changes in its charges for electric service based upon, *inter alia*, the commercial operation of Wolf Creek. KG&E amended its application on January 31, 1985. KG&E requested ap-

proval of rates designed to increase total company revenues by $144.9 million in 1985. The 1985 rate proposal is but the first of five annual rate increases proposed by KG&E. The annual revenue increases proposed for the following four years would be the subject of future rate proceedings.

6. Docket No. 142,100-U was created on November 14, 1984, upon the filing by KEPCo of its application requesting proposed changes in its charges for electric service based upon, *inter alia*, the commercial operation of Wolf Creek. KEPCo filed an amended application on February 1, 1985. In its application KEPCo requested a $26,984,410 increase in annual revenue, representing approximately a 40 percent increase in revenue presently collected from KEPCo's member distribution cooperatives. The Commission's findings with regard to Docket Nos. 142,098-U and 142,100-U are set out in separate orders.

7. As noted, the above-referenced applications for rate relief and the general investigation are based primarily upon the investment in, and the commercial operation of, the Wolf Creek Generating Station. Thus there are issues common to all of the above referenced dockets. In an order dated March 29, 1985, the Commission found six Wolf Creek related issues were to be designated common issues to be heard on a common record in accordance with K.A.R. 82-1-224(a). The six issues were identified as follows:

(1) the reasonableness of the cost, acquisition and construction of the Wolf Creek Generating Station, and including, but not limited to, comparison of actual cost with the definitive or original cost estimate;

(2) the reasonableness of the cost of operation of Wolf Creek including overhead, maintenance, personnel, appropriate depreciation rate and increased insurance costs;

(3) determination of the appropriate methods of waste disposal and decommissioning, and the reasonableness of the respective costs;

(4) all issues relating to the use of nuclear fuel and the status of the licensing of Wolf Creek;

(5) whether the collective management decisions to construct and the collective management decisions to continue construction on a year to year basis were economically prudent; and

(6) whether any portions of cost of acquisition, construction or operation of Wolf Creek were incurred due to lack of efficiency or prudence, including, but not limited to, consideration of those factors to be considered pursuant to K.S.A. 1984 Supp. 66-128g(a).

8. In addition, the issue of excess capacity, or the need for power, as it relates to one or more of the six issues set forth above, was found to be a common issue properly presented either on the common record or on the record of each company's specific docket. Furthermore, any other issues not specifically identified but which relate to, or bear upon, the six issues enumerated above, could be presented as part of the common record.

9. Consistent with the identification of common issues, in an order dated August 13, 1985, the Commission consolidated Docket Nos. 120,924-U, 142,099-U, 142,098-U, and 142,100-U pursuant to K.A.R. 82-2-224(a) for the purpose of hearing evidence concerning the common issues on a common record.

10. The scope of this order is limited to the Commission's findings with regard to the common issues addressed in Docket No. 120,924-U and 142,099-U jointly and the KCPL specific issues addressed in Docket No. 142,099-U. Issues identified and addressed by the Com-

mission in its deliberations concerning the common issues of Docket No. 120,924-U and 142,099-U include:

(1) the efficiency and prudence of the Wolf Creek acquisition/construction process;

(2) excess generating capacity;

(3) the reasonable value of Wolf Creek capacity;

(4) the decommissioning of a nuclear power plant;

(5) Wolf Creek operating and maintenance expense;

(6) Wolf Creek depreciation rate;

(7) the need for performance standards;

(8) funding for payment of dividends during the construction of Wolf Creek;

(9) the appropriate ratemaking treatment of fines and penalties relating to Wolf Creek;

(10) an examination of a leasing arrangement for nuclear fuel; and

(11) the need for periodic reporting concerning load growth equivalent availability, capacity factor, operating and maintenance costs, decommissioning estimates, forced and scheduled outages and insurance coverage.

11. With regard to the issues specifically related to KCPL's rate application, through direct testimony and cross-examination, Applicant took issue with the staff's recommendations regarding the interim nature of this rate proceeding; staff's proposed adjustment to operations expense and payroll tax expense regarding vacant employee positions; staff's proposal regarding exclusion of certain expenses associated with Hawthorn Units 1, 2, 3 and 4; staff's proposal regarding property tax expense as it corresponds to exclusion of the Wolf Creek Generating Station investment from rate base; staff's pro-

posal regarding calculating KCPL's income tax expense; staff's proposal regarding dispatch modeling; staff's proposed return on equity for KCPL at this time; staff's proposed jurisdictional allocations methodology for KCPL's production and transmission plant; staff's proposed rate design; staff's proposed phase-in of the rate increase; and staff's position regarding FASB-71. Certain intervenors took issue with the staff and company rate design proposals, with the level of rate relief due KCPL, and with the proposed phase-in plans of KCPL and of the staff.

12. The hearing of common issues in Docket No. 120,-924-U and 142,099-U commenced May 13, 1984, at the Kansas Statehouse, Old Supreme Court Chambers, Third Floor, Topeka, Kansas. KCPL company-specific rate issues in Docket No. 142,099-U were called for hearing on July 6, 1985 and concluded on July 15, 1985. A complete list of witnesses called to testify on behalf of the applicants and staff in Docket Nos. 120,924-U, and 142,099-U is attached hereto in the Appendix.

13. On June 21, 1985 the Johnson County Joint Intervenors filed a motion with the Commission for an order directing involuntary dismissal of the KCPL rate application, Docket No. 142,099-U. The motion was accompanied by a memorandum in support of the motion. The Commission heard oral argument on the motion by the parties on July 6, 1985 in the Old Supreme Court Chambers, Statehouse, Topeka, Kansas. On the conclusion of the oral argument, the Commission took the matter under advisement.

14. Having considered the arguments of counsel for the Johnson County Joint Intervenors, for Electro Dynamics, Inc., and Thermo Dynamics, Inc., and for KCPL, the Commission finds that the motion should be denied.

15. The Commission functions as a quasi-legislative body, and as such we find it necessary to gather as much information as available in hearings on rate applications.

Thus we believe the Johnson County Joint Intervenors' motion to dismiss should be denied because it was necessary to continue the fact-finding and information gathering.

16. The Commission also heard testimony from ratepayers at public hearings conducted at the following times and locations:

June 4	Wichita 9 a.m.— 1-7 p.m.	Century II Complex 225 W. Douglas
June 5	Wichita 9 a.m.— 1-7 p.m.	Century II Complex
June 6	Lindsborg 1 p.m.	Bethany College
June 6	Newton 7:30 p.m.	Bethel College North Newton
June 7	Meade 1 p.m.	Veterans' Bldg. 115 E. Belle
June 7	El Dorado 7 p.m.	Butler Cty. Comm. College 901 S. Haverhill Rd.
June 10	Topeka 7 p.m.	Capitol Bldg. 3rd Floor—Room 313 S
June 11	Paola 7 p.m.	Paola High School 405 N. Hospital Drive
June 12	Pittsburg 7 p.m.	Pittsburg Memorial Auditorium 503 North Pine
June 13	Overland Park 9 a.m. 1-7 p.m.	Johnson Cty. Comm. College 12345 College Blvd.
June 18	Iola 7 p.m.	Bowlus Fine Arts Center 205 East Madison

June 19	Independence 7 p.m.	Memorial Hall Civic Center (Basement) Locust & Penn. Ave.
June 20	Beloit 7 p.m.	Municipal Bldg. 119 North Hersey

The record was closed upon the filing of briefs by the parties August 30, 1985 and receipt on September 16, 1985 of staff's affidavit regarding commercial operation.

III. JURISDICTION AND NOTICE

1. The Kansas Corporation Commission has the power and authority to require all public utilities doing business in Kansas, to provide reasonably efficient and sufficient service and to establish and maintain just and reasonable rates. K.S.A. 66-107.

2. Unless the State Corporation Commission otherwise orders, no common carrier or public utility over which the Commission has control shall make effective any changed rate, or rates of such public utility or common carrier, except by filing the same with the Commission at least 30 days prior to the proposed effective date thereof. K.S.A. 66-117. The State Corporation Commission has the authority to review and evaluate the efficiency and prudence of any action, including acquisition of excess capacity, or operating practices of any public utility or common carrier for the purpose of establishing fair and reasonable rates. K.S.A. 66-128a.

3. An order of the Commission establishing just and reasonable rates must be based upon substantial competent evidence. *Jones v. Kansas Gas and Electric Company*, 222 Kan. 390 (1977).

4. KCPL is a corporation organized and existing under the laws of the State of Missouri, with its principal place of business located at 1330 Baltimore Avenue, Kansas City, Missouri, and Kansas offices in Overland Park and throughout the rest of its Kansas service territory. KCPL

is an electric public utility within the meaning of K.S.A. 66-101 *et seq.* and it holds appropriate certificates of convenience and necessity to engage in the business of the sale of electric service at retail for domestic, commercial and industrial uses in the State of Kansas. As such it is subject to the jurisdiction of this Commission.

5. KG&E is a corporation organized and existing under the laws of the State of Kansas with its principal place of business at 201 North Market Street, Wichita, Kansas. KG&E is an electric public utility within the meaning of K.S.A. 66-101 *et seq.* and it holds appropriate certificates of convenience and necessity to engage in the business of the sale of electric service at retail for domestic, commercial, and industrial uses in the State of Kansas. As such it is subject to the jurisdiction of this Commission.

6. KEPCo is a corporation organized and existing under the laws of the State of Kansas with its principal place of business located at 5990 Southwest 28th Street, Topeka, Kansas. KEPCo is an electric public utility pursuant to the provisions of K.S.A. 66-101 *et seq.* and it holds appropriate certificates of convenience and necessity to engage in the business of the sale of electric services at wholesale to twenty-five rural electric cooperative members in the State of Kansas. As such it is subject to the jurisdiction of this Commission.

7. The following parties were granted leave to intervene in Docket Nos. 120,924 and/or 142,099-U: Kansas Natural Resource Council, Cities of Olathe, Lenexa, Merriam, Overland Park, Shawnee, Mission, Roeland Park, Countryside, Wichita, Clearwater, Derby, Goddard, Garden Plain, Whitewater, Kechi, Potwin and Cheney, Kansas, Vulcan Materials Company-Chemical Division, ALERT, Electric Shock Coalition, Electro Dynamics, Inc., and Thermo Dynamics, Inc., Robert T. Stephan, Attorney General of the State of Kansas, Conoco, Inc., Kansas Independent Oil and Gas Association (KIOGA), Wichita

Area Chamber of Commerce, KPL/Gas Service Company, Johnson County Board of County Commissioners, Johnson County Community College, Johnson County Commercial and Industrial Energy Consumers, Blue Valley School District, Olathe Unified School District, Shawnee Mission Public Schools, Mary Margaret Rogers, United States Air Force, Kansans for Sensible Energy and the Hospital and Industrial Intervenors Group.

8. Applicant verified that it published notice of hearing in Docket Nos. 120,924-U and 142,099-U, in 19 newspapers of general circulation in its service areas in Kansas, between March 31 and April 4, 1985, and also posted a copy of the notice in a conspicuous place in its downtown office in Kansas City, Missouri and its commercial office in Kansas. In addition, Applicant verified that it served the notice by direct mail to each party of record in Docket Nos. 120,924-U and 142,099-U, and to each intervenor in its last previous rate case before this Commission, Docket No. 133,002-U. Further, Applicant verified it sent the notice, as a bill insert to each of its Kansas customers between March 12, 1985 and April 11, 1985. The Commission finds that reasonable notice of hearing was given.

IV. EFFICIENCY AND PRUDENCE OF THE WOLF CREEK ACQUISITION/CONSTRUCTION PROCESS

A. *INTRODUCTION*

1. In valuing utility property for ratemaking purposes, if the Commission determines that all or a portion of the costs of acquisition, construction, or operation of a generating facility were incurred due to a lack of efficiency or prudence or were incurred in the acquisition or construction of excess capacity, then the Commission may exclude all or a portion of such costs from eligibility for recovery through rates in accordance with K.S.A. 1984 Supp. 66-128c which provides as follows:

> The state corporation commission, in determining the reasonable value of property under K.S.A. 66-128, and amendments thereto, shall have the power to evaluate the efficiency or prudence of acquisition, construction or operating practices of that utility. In the event the state corporation commission determines that a portion of the costs of acquisition, construction or operation were incurred due in whole or in part to a lack of efficiency or prudence, or were incurred in the acquisition or construction of excess capacity, it shall have the power and authority to exclude all or a portion of those costs from the revenue requested by the utility.
>
> For the purpose of this act, "excess capacity" means any capacity in excess of the amount used and required to be used to provide adequate and reliable service to the public within the state of Kansas as determined by the commission. The commission may in its discretion prohibit or reduce the return on costs which were incurred in constructing, maintaining or operating excess capacity.

2. In the event that the Commission finds a public utility to have imprudently incurred costs relating to the acquisition, construction, or operation of utility plant or if the Commission finds excess capacity to have resulted from imprudence in facility planning, the Commission may not allow recovery of carrying or financing charges on costs so incurred after the date of its finding. K.S.A. 1984 Supp. 66-128e provides, in pertinent part, as follows:

> In the event the commission finds that a portion of the costs were attributable either to investment in excess capacity which were incurred due to lack of prudence in facility planning or were incurred due to lack of prudence in plant acquisition, construction or operation, the commission shall exclude that por-

tion of the carrying or finance charges incurred after the date of its finding, and no part of the carrying or finance costs excluded shall ever be or become part of the reasonable value of public utility property so used and required to be used. For the purposes of this section only, a finding of lack of prudence in capacity planning for a facility which in whole or in part represents excess capacity shall not be made by the commission when a siting permit authorizing the construction of the facility has been issued under K.S.A. 66-1,162 and amendments thereto prior to the passage of this act. The commission also shall not authorize the recovery as operating expense or in any other manner of the carrying or finance costs so excluded.

Nothing in this act shall limit the commission's authority to adjust revenue requirements of any public utility if the commission determines the revenue requirement requested results in whole or in part from inefficiency or a lack of prudence.

3. The Commission must consider the prudence "factors" listed in K.S.A. 1984 Supp. 66-128g(a) in assessing whether construction costs were prudently incurred and in determining whether such costs should be recovered through rates.

The factors which shall be considered by the commission in making the determination of "prudence" or lack thereof in determining the reasonable value of electric generating property, as contemplated by this act shall include without limitation the following:

(1) A comparison of the existing rates of the utility with rates that would result if the entire cost of the facility were included in the rate base for that facility;

(2) a comparison of the rates of any other utility in the state which has no ownership interest in the facility under consideration with the rates that would result if the entire cost of the facility were included in the rate base;

(3) a comparison of the final cost of the facility under consideration to the final cost of other facilities constructed within a reasonable time before or after construction of the facility under consideration;

(4) a comparison of the original cost estimates made by the owners of the facility under consideration with the final cost of such facility;

(5) the ability of the owners of the facility under consideration to sell on the competitive wholesale or other market electrical power generated by such facility if the rates for such power were determined by inclusion of the entire cost of the facility in the rate base;

(6) a comparison of any overruns in the construction cost of the facility under consideration with any cost overruns of any other electric generating facility constructed within a reasonable time before or after construction of the facility under consideration;

(7) whether the utility having an ownership interest in the facility being considered has provided a method to ensure that the cost of any decommissioning, any waste disposal or any cost of clean-up of any incident in construction or operation of such facility is to be paid by the utility;

(8) inappropriate or poor management decisions in construction or operation of the facility being considered;

(9) whether inclusion of all or any part of the cost of construction of the facility under considera-

tion, and the resulting rates of the utility therefrom, would have an adverse economic impact upon the people of Kansas;

(10) whether the utility acted in the general public interest in management decisions in the acquisition, construction or operation of the facility;

(11) whether the utility accepted risks in the construction of the facility which were inappropriate to the general public interest of Kansas;

(12) any other fact, factor or relationship which may indicate prudence or lack thereof as that term is commonly used.

4. In light of these statutes and the general empowering statutes in Chapter 66, we have reviewed the owners' Management Performance Evaluation, Reconciliation Management Summary, and WCGS cost reconciliation and schedule testimony. In addition, we have studied the Touche Ross and Project Management Associates (PMA) reports, and evaluated the owners' criticisms of these reports. Our assessment of the WCGS costs and construction management follows.

B. *PLANNING, ORGANIZATION AND CONTROL OF THE PROJECT AND ITS COST*

Initial Period (1973-1977)

1. The owners and staff each presented evidence and testimony to evaluate the owners' management performance during the initial phases of the Wolf Creek project. The witness for the owners, Mr. Charles L. Huston, asserted in his testimony and Exhibit G-KGE-1, that the owners' decision to join the nuclear power plant standardization group, or SNUPPS, was the "most significant event of the entire project." Because of this association, asserts Mr. Huston, the owners were able to avail themselves of the knowledge of other utilities with experience

in constructing nuclear power plants and to accrue savings in engineering, licensing and procurement, as well as other areas. (Exhibit G-KGE-1, Schedule 1, p. 10). Staff witness Thomas J. Flaherty came to the same conclusion in his testimony. He stated:

> The advantages available to the Owners from participation far outweigh the potential disadvantages whether considered on an economic or non-economic basis. The ability to spread the cost of design among a number of utilities provides immediate economic benefits that also accrue to the ratepayers. Moreover, the ability to rely on the technical expertise of other experienced and participating utilities serves to increase the knowledge base of the Owners and provides for increasing familiarity over time based on the previous situations similarly experienced by these utilities. This tie-in to a broader network was particularly important given the lack of design, construction or construction management experience of the Owners. (TR. Vol. XVII, p. 4790).

Mr. Flaherty further acknowledged the positive effects of the decision to joint SNUPPS when he discussed the savings in cost and schedule that resulted from the reduction of design hours and licensing effort by spreading the cost over a number of plants. (TR. Vol. XII, p. 4905-4906).

2. Witnesses for the staff and owners agree that the owners' selection of major contractors was appropriate. Mr. Huston discussed the selection of the major architect/engineer and the engineering management of the project in Chapter III of the "Management Performance Evaluation." (Exhibit G-KGE-1). He observed that:

> The SNUPPS utilities selected Bechtel Power Corporation based upon its having the greatest amount of nuclear project engineering experience of any firm in the industry and the strength of its proposed

> project team. Executive management committed by Bechtel to the SNUPPS project was strong. (Exhibit G-KGE-1, p. 50).

Mr. Flaherty testified that while the evaluation process for the selection of the lead architect/engineer was limited, the "selection of Bechtel resulted in obtaining the largest and most experienced architect/engineer in the nuclear power industry." (TR. Vol. XVII, p. 4792). Mr. Huston described the selection process for choosing the major site constructor, Daniel International Corporation (DIC), in Chapter VI of Exhibit G-KGE-1. Mr. Flaherty evaluated that process in his report. He concluded that:

> The evaluation and selection process used by the Wolf Creek owners was comprehensive in scope and gave appropriate consideration to economic, experience and capability factors. The evaluation and selection process employed included an assessment of the strengths and weaknesses of each organization.
>
> * * * *
>
> The selection of DIC as the constructor for the Wolf Creek project was reasonable and prudent based on the information available to the Wolf Creek Owners. The selection process was comprehensive in scope . . . and involved the scrutiny of senior management of the Owner utilities. (Exhibit G-Staff-63, p. VI-27 and 28).

Staff witness Flaherty's findings relative to the selection of the contractor for the nuclear steam supply system and the turbine generator supplier were that the selection processes were comprehensive and thorough. (Exhibit G-Staff-63, p. VI-29 and 30). He summarized his findings regarding the owners' efforts in contractor selection in his testimony:

> In each case, multiple bidders were requested to participate in the bidding process and were thoroughly evaluated on both objective and subjective bases.

> Home office or other site visits were made to further evaluate submitted material. Although the process for selection of Bechtel as the lead A/E was significantly less comprehensive, the overall process followed for selection of major vendors and contractors was appropriate and was conducted with thorough consideration of a wide variety of factors. (TR. Vol. XVII, p. 4792).

3. During the early stages of the project, the company adopted an overall management philosophy described as construction "monitoring" by both staff and owner witnesses. Staff witness Flaherty asserted that the initial philosophy could be characterized as "that of contractor monitoring and rendering approval or denial to contractor recommendations." (TR. Vol. XVII, p. 4791). Mr. Huston discussed the owners' early construction management philosophy in his exhibit:

> The initial concept [of construction management] was to have one contractor serve as the Construction Manager of all site activities with *limited* Owner involvement . . . (Emphasis added). (Exhibit G-KGE-1, Schedule 1, p. 167).

Mr. Flaherty asserted that this approach to managing the Wolf Creek Generating Station was inadequate:

> The initial management philosophy as apparently developed did not provide the necessary emphasis to the project management function. Given the size and complexity of the proposed project, a more structured and stronger approach toward management of the contractor effort would be necessary to provide the level of oversight commensurate with potential risks. This was particularly true in light of emerging trends and conditions with respect to nuclear power and the lack of relevant experience of the Owners. (Exhibit G-Staff-63, p. VI-14).

Mr. Flaherty attributed the inadequacy to the owners' lack of understanding of the nature of the project:

> . . . the Owners did not fully appreciate the complexity and magnitude of the task facing them in the design, licensing and construction of a nuclear generating facility. Relying on the same management approach which had been used in the past to support the construction of gas/oil-fired generating facilities was insufficient for directing a nuclear construction program. (TR. Vol. XVIII, p. 4797).

In Mr. Flaherty's opinion, the effect of the owners' "monitoring" role was reflected in subsequent inefficient performance by the prime construction contractor:

> . . . the initial level of management involvement was not sufficient enough to support . . . effective project management. With a greater level of involvement earlier in the project it is likely that some of the problems experienced related to DIC performance and overall project progress could have been avoid (sic) or mitigated. (TR. Vol. XVII, p. 4799).

4. The form of the contract between the constructor and the owners for the plant was addressed by the owners as well as the staff. Witnesses for the owners and staff testified that industry practice for construction of nuclear power plants had dictated the use of a cost-plus type contract by the owners. In his report, Mr. Flaherty stressed the importance of the owners' direct involvement in administering cost-plus type contracts and asserted that:

> Given the high level of financial commitment to Wolf Creek, a more extensive and experienced project construction organization should have been established at project inception. Not only would this additional monitoring capability provide an organization to better challenge claims for increased cost or schedule delays by various vendors or contractors, but it

would have provided the top management of the Owners a better understanding of project problems, etc., which would have facilitated the comprehensiveness and the timing of corrective management actions by the Owners. (Exhibit G-Staff-63, p. VII-19).

5. The Commission finds that management performance in the initial stages of the project was reasonable and appropriate in the selection of major contractors and in the decision to participate in the SNUPPS organization. However, the Commission finds that inherent problems arose from the management philosophy adopted by the owners in the early years. The evidence is persuasive that the owners neither defined nor understood the scope of the project. We find that the monitoring role was inefficient, ineffective, and inappropriate under the circumstances. The owners' initial philosophy led to management inefficiencies and ineffectiveness and contributed to poor contractor performance during certain phases of the project. The lack of effective, efficient management on the part of the owners at the outset limited the owners' ability to control costs and schedule to the detriment of the ratepayers.

Early Construction Period (1978-1980)

1. Mr. Huston testified concerning the effectiveness of the owners' management performance during construction of the Wolf Creek Generating Station. He asserts that "the owner and contractors exerted exceptionally strong and effective management and achieved commensurately outstanding results" in some areas. He also asserts that less than outstanding, but still acceptable, performance occurred in areas of labor productivity and overtime. (TR. Vol. I, p. 154). At page 189 of Exhibit G-KGE-1, Management Performance Evaluation, Mr. Huston states, "In 1979 and early 1980, it was apparent that construction performance was less than required by the schedule and the budget." He then concluded in his

testimony that the owners' overall management performance for the project was good. (TR. Vol. I, p. 163). Mr. Gary Fouts, construction manager of the project since 1979, voiced his opinion of the owners' approach to construction management prior to 1980 in his testimony. He testified that since the owners had no prior experience in nuclear construction management, it was proper and reasonable for them to select a contractor (DIC) with nuclear construction experience and entrust that contractor with the overall construction management of the project. He asserted that from the period 1976-1978 there was no need to change the approach, but that the owners increased their involvement in 1979-1980 when construction problems arose and the project entered a more complex phase. (TR. Vol. XXXV, p. 10478-10479).

2. Witnesses for the staff asserted that prior to 1980 construction performance never achieved expected levels. Mr. Flaherty criticized the owners' "monitoring" role, the size of the owners' initial project staff commitments and the level of management involvement. (TR. Vol. XVII, p. 4819). Criticisms of the early phases of construction management were also contained in the 1980 report submitted to the Commission by Cresap, McCormick and Paget, Inc. That report stated:

> Several factors lead the consultants to conclude that early phases of construction management were unsatisfactory.
>
> —Owner-utility involvement at the headquarters level was insufficient.
>
> —Staffing of KG&E's construction management organization was grossly inadequate. (Exhibit G-Staff-188, p. VII-26).

3. Witnesses for the owners assert that while problems in construction occurred at Wolf Creek as they do at all major construction projects, the owners' responses to

the problems were timely and effective. (Fouts, TR. Vol. XXXV, p. 10478; Brown, TR. Vol. XXX, p. 9024; Huston, TR. Vol. III, p. 499-500). Mr. Flaherty contends that the level of management attention was insufficient to diagnose problems soon enongh to arrest potentially harmful conditions:

> Its a question of why the problem necessarily surfaced and could it have been diagnosed sooner. (TR. Vol. XVII, p. 4946).
>
> * * * *
>
> A more relevant point would be how did the situation get to that particular point, without having been arrested earlier, and that's the kind of thing we're talking about in terms of the lack of project management capabilities in the early years may have precipitated a result of that kind, . . . (TR. Vol. XVII, p. 4957).

Mr. Flaherty pointed out that other consultants, including those employed by the owners, had concluded that the owners' management efforts should have been greater at an earlier point in time. He asserted that in view of the level of investment, the owners should have placed more emphasis on the project. (TR. Vol. XVII, p. 4875-4876).

4. Special staff witness Lawton C. Mitchell asserted that the owners' management performance was deficient in four respects: a) lack of experience on the part of constructor; b) lack of commitment by the owners and constructor; c) lack of an effective cost control and scheduling system; and d) failure of the constructor to develop an effective quality program. (TR. Vol. XVII, p. 5085-5086).

(a) Mr. Mitchell asserted that more than half of the DIC management and supervisory personnel assigned to Wolf Creek had three years or less nuclear experience when they arrived at Wolf Creek. The combination of the owners' inexperience with the inexperience of the

major constructor compounded the difficulty of attaining a degree of effectiveness on a nuclear project. (TR. Vol. XVII, p. 5085).

(b) Staff witness Flaherty asserted in his report that the owners did not adequately staff the project:

> The KG&E Construction Organization was understaffed at the time the Wolf Creek project mobilized for construction. A total personnel complement of only 6 people did not provide adequate coverage to represent the Owners' interests and level of risk associated with the project.
>
> • • • •
>
> The limited number of KG&E construction personnel made monitoring of project costs, schedule, and/or manpower impractical at the time the project fully mobilized for construction. At best, the personnel available would have the resources to deal with the progress of the project on an exception basis only; that is, the Owner personnel would be in a position to only deal with problems which were brought to their attention by vendors or contractors. (Exhibit G-Staff-63, p. VIII-18).

Staff witness Mitchell testified that the prime contractor demonstrated a lack of commitment by failing to aggressively recruit and hire nonmanual personnel during the 1979-1980 time frame. (TR. Vol. XVII, p. 5085). In his report, Mr. Mitchell stated that the ratio of nonmanual to manual labor was inordinately low throughout 1979-1980, and he suggested that this low level of nonmanual personnel support could have contributed to poor craft and quality performance during that time period. (Exhibit G-Staff-63, p. XI-15). Mr. Mitchell cited problems that occurred in issuing and implementing procedures, processing reports, interpreting inspection procedures, performing inspections, reporting progress, and planning

material and manpower levels for specific work operations. (Exhibit G-Staff-63, p. XI-19 and 20).

(c) Mr. Mitchell testified that the management cost systems used by DIC lacked sufficient data to effectively understand performance or to control costs. (TR. Vol. XVII, p. 5086). He further asserted that the deficiency resulted from a management decision rather than the lack of computer software.

> This is not a function of deficiencies in computer software but the result of a management decision to collect costs at a higher level than that which is necessary to ascertain cost causation. (TR. Vol. XVII, p. 5086).

Cresap, McCormick and Paget, Inc., in its 1980 report to the Commission, asserted that the owners' budgeting process for the project suffered from major deficiencies:

> The Wolf Creek Plant's budgeting process has five major deficiencies:
>
> —weak budget development and review procedures
>
> —inconsistent accounting for budgeted items
>
> —inadequate budget reports
>
> —insufficient performance analysis and follow-up practices
>
> —cumbersome systems that support budget development and control. (Exhibit G-Staff-188, p. IX-11 and 12).

Mr. Mitchell testified further that the scheduling system in place by DIC suffered from the lack of manpower loading. (Exhibit G-Staff-63, p. XI-22). He testified that an owners' control group was established to provide an independent review of costs and schedule delays, but, that the group was not established until 1980. (Exhibit G-

Staff-63, p. XI-29 and 30). Cresap, McCormick and Paget, Inc., in its 1980 report to the Commission, identified problems with the scheduling system and stated:

> Inability of the constructor to accurately anticipate manpower requirements has had a number of adverse consequences for project schedule and cost.
>
> * * * *
>
> Some temporary overstaffing has also occurred, and this has resulted in reduced labor productivity. (Exhibit G-Staff-188, p. VII-8).

Mr. Huston, witness for the owners, identified similar problems in his 1979 report to the owners:

> Electrical activities in the DIC CPM had not been leveled with available manpower.
>
> The six-month look-ahead schedule did not contain adequate definitions of various commodities; it did not provide management appropriate information to identify what work needed to be performed or in what sequence the work should be undertaken.
>
> In the quantity tracking system, installation of bulk items was reported as complete prior to acceptance by Quality Control. It should be recognized that significant rework occasionally resulted from these QC inspections. (Exhibit G-Staff-63, p. XI-29.)

He testified that the scheduling problem went unsolved for a period of time and that in his judgment, the logic in the schedule should have been corrected earlier. (TR. Vol. III, p. 534). In April 1980, Mr. Huston concluded in a report to the owners:

> . . . The current schedule program provides the data management needs in the civil and major equipment areas but is lacking in the piping, instrumentation, and electrical areas.

> The constructor has a CPM program with the capability to define priority schedule activities. However, problems with logic, durations, and completeness prevent it from presenting a total picture of critical project activities.
>
> * * * *
>
> The optimum size work force can work on the proper sequence of activities only when a schedule is prepared that accurately identifies this work sequence.
>
> The Owners need to improve and strengthen their schedule interface with the constructor. (Exhibit G-Staff-5, p. 11).

Mr. Huston continued to voice concerns about the scheduling program in September 1980 (Exhibit G-Staff-6) and in January 1981 when he stated:

> DIC and Startup still have not gotten together and input system restraints into the CPM schedule.
>
> * * * *
>
> Although DIC has worked on their CPM program in recent months, it still suffers from the basic flaw of not having been manpower loaded.
>
> * * * *
>
> DIC has not scheduled instrumentation work and there is still no adequate definition of the scope of work to be done.
>
> * * * *
>
> DIC has not prepared manpower curves which reflect the requirements of the new schedule. It is difficult for DIC to effectively manage their work without them. (Exhibit G-Staff-7, pp. 1 and 2).

(d) Mr. Mitchell asserted that DIC failed to develop an effective quality program which led to increased scrutiny of the project by the Nuclear Regulatory Commission (NRC) (TR. Vol. XVII, p. 5086). He further

testified that while many of the shortcomings in the program were identified early in the project, similar problems occurred throughout the life of the project. The NRC expressed concern with the owners' management controls and in 1979 threatened the project with a civil penalty if the improvement was not made. (Exhibit G-Staff-63, p. XI-31). The owners were assessed a $40,000 civil penalty early in 1983 for failure to adequately control activities affecting the quality of safety-related systems. (Exhibit G-Staff-63, p. XI-33). Cresap, McCormick and Paget in 1980 identified similar problems with the quality assurance program. (Exhibit G-Staff-188, p. VII 24 and 25).

5. The Commission finds that the owners' management of the project prior to 1981 was clearly inefficient and ineffective. The evidence is persuasive that the monitoring role adopted by the owners was inappropriate, produced ineffective management, and resulted in a lack of project control. The ensuing inefficiencies and lowering of labor productivity are reflected in schedule delays and increased costs that occurred during various periods of construction. The Commission recognizes that there was no realistic alternative to the cost-plus nature of the contract utilized by the owners for construction of the project. However, the Commission finds that the level of concern and commitment on the part of the owners in this time frame was not sufficient to administer a cost-plus type contract. In view of the nature of the contract, the cost and schedule control systems adopted by the owners were inadequate and did not provide the requisite degree of control.

6. We find that lack of management attention coupled with the lack of efficient, effective management on the part of the owners resulted in schedule delays and increased costs that could have been mitigated by strong management action earlier in the project.

Mid-years of Construction (1981-1982)

1. Mr. Huston, witness for the owners, asserted that as the project entered the more complex stages of construction (mechanical, piping, electrical, instrumentation and startup work), the owners elected to increase their construction management staff. In addition to the expansion of the on-site staff, the owners removed some portions of work and the contract administration responsibility from DIC. The owners assumed these additional roles as well as that of site construction manager which had previously been assigned to DIC. The owners began to infuse more personnel into direct participation in the construction efforts of the project. (Exhibit G-KGE-1, p. 189-190).

2. Mr. Gary Fouts, construction manager, asserted that problems were identified by the owners early in 1980, that the owners and DIC agreed to change the project management team late in 1980, and accomplished the change early in 1981. (TR. Vol. XXXV, p. 10480). Mr. Fouts stated that during 1981, DIC changed its overall organization from an area to a discipline organization to permit greater concentration and effort in the piping and other areas. (TR. Vol. XXXV, p. 10481). DIC increased personnel levels in pipe engineering and quality control and made changes in the pipe welding group. As a result, the weld rejection rate decreased significantly in 1981. In 1981, the owners removed instrumentation work from the DIC scope since it had been performed by the piping group with a number of problems. The owners began conducting weekly schedule meetings to track the systems and piping program. In 1982, the owners and DIC utilized a team of industrial engineers to improve piping performance and formed a Piping Task Force to make recommendations for needed changes. As a result, piping performance improved during the last half of 1982. (Fouts, TR. Vol. XXXV, p. 10482).

3. Mr. Fouts testified that the owners had identified problems in the electrical area in 1980 and began to implement changes. The owners and DIC agreed to change personnel and formed a joint task force to improve electrical productivity. Mr. Fouts asserted that electrical performance improved significantly in 1981 so that energization was completed on schedule. In addition, Mr. Fouts asserts, the DIC electrical group worked closely with Bechtel to minimize the schedule impact of the many design changes mandated by regulatory requirements. (TR. Vol. XXXV, p. 10484-10485).

4. In Exhibit G-KGE-1, Mr. Huston enumerated the steps the owners and DIC took to effect changes and improve performance in the period 1981-1982. He stated the owners held detailed meetings with Bechtel and Westinghouse to expedite design changes; requested that EBASCO evaluate the schedule to determine if a second shift would be of benefit; removed two piping systems from the DIC scope and assigned the work to General Electric; established a Construction Completion and Startup Testing Task Force; and established a Quality Control Group in addition to the Quality Assurance Group. (Exhibit G-KGE-1, p. 267-268).

5. Mr. Flaherty testified that the owners responded in timely fashion to problems that began to emerge in 1979. He stated the owners took a firmer stance in dealing with the prime contractors and that consultants and KG&E personnel became much more involved in planning and budgeting, particularly with respect to contractor provided plans and reports. (TR. Vol. XVII, p. 4798-4799). In Mr. Flaherty's management report on Wolf Creek, he states that the owners' construction management organization implemented in 1980 produced a much more effective means of monitoring the constructor's progress and performance. (Exhibit G-Staff-63, p. VII-19).

6. In the staff report, Mr. Mitchell observed that in October 1981, KG&E management had judged the DIC

overall management performance to be less than acceptable. The ranking assigned to DIC by KG&E management was 4, based on a scale of 1 to 10, which was considered low enough to warrant its removal from the project. (Exhibit G-Staff-63, p. XI-43). Mr. Flaherty testified that the owners took actions to initiate positive changes in DIC's performance. The actions included replacing certain DIC personnel, encouraging DIC to perform more responsibly and to more aggressively manage certain activities, and to remove certain portions of work from DIC's area of responsibility. (TR. Vol. XVII, p. 4958).

7. The Commission finds that in some instances the owners' management of the project began to improve in 1980 and that definite improvement in management performance was apparent from 1981-1982. The evidence clearly indicates that as the owners abandoned a passive role and began to aggressively manage the project, improvements in performance occurred. The increase in the level of commitment on the part of the owners through the assignment of a construction manager, the increase in the size of the owners' on-site staff, the decisions to change some Daniel personnel, and the increase in Bechtel's on-site liaison staff provided much-needed stimulus for positive change. The management inefficiency and ineffectiveness that had been apparent in earlier periods began to dissipate once the owners began to assert positive and aggressive control of the project.

Completion Stage (1983 to present)

1. Mr. Huston described the owners' actions to maintain improved performance at Wolf Creek. In response to overall construction deterioration in the first quarter of 1983, the owners required DIC to replace several members of top management at Wolf Creek. Mr. Huston asserts that the owners hired a Project Director experienced in completing nuclear projects and injected owner per-

sonnel in contractor organizations where improved performance was needed. (Exhibit G-KGE-1, p. 269). In addition, the owners placed a limit on overtime which was adversely affecting productivity; required that Westinghouse replace its project manager; and requested that Bechtel increase its site liaison staff to facilitate engineering resolutions of problems on critical activities. (Ibid., p. 269). He stated that by the end of 1983, construction had turned over to Startup most of the critical systems, except for a number of hardware and software items on these systems, and that increased management emphasis was placed on completion of those items.

2. Mr. Fouts stated the owners continued their efforts to optimize piping performance in 1983 by forming a Document Review Task Force to facilitate document review, and by infusing owner personnel into the DIC piping organization. (TR. Vol. XXXV, p. 10483).

3. Mr. Wilson Cadman, Chief Executive Officer and President of KG&E, asserted in his testimony that in November 1983:

> . . . we were coming down the wire with a plant that was well under way, minimum trouble. We looked at our ability to continue the financing of the plant and we set ourselves to the task of determining the way that we could bring the plant in with whatever restructuring of management was necessary, whatever steps had to be taken, and keeping in mind the foremost direction of the company and our policy, our stated policy, on the construction of Wolf Creek to bring that plant in safely and as nearly as reasonable as a contemporaneous plant could be built. (TR. Vol. X, p. 2797).

He testified concerning the management effort in July 1984:

> Our energies were turned to the management of the plant, continuing to adjust to the ever increasing

requirements of completion and to bring on to the site whatever levels of management with new forms of expertise that could be found anywhere in the world to do that job. (TR. Vol. X, p. 2798).

4. Mr. Mitchell, special staff witness, observed improved performance during this time frame in the resolution of nonconformance reports:

> The timing of NCR resolution was slow in the early years of the project (1977 through 1980). Improvement was noted beginning in 1981 with the most significant results being achieved in 1983 and 1984. This time period coincides with the time period in which revisions were made to DIC procedures to improve the tracking of discrepancies. (Exhibits G-Staff-63, p. XI-42).

5. Mr. Flaherty, special staff witness, testified that in the later stages of the project:

> . . . the owners appeared to have a more thorough and comprehensive understanding of the project complexity, a deeper appreciation of project requirements, and a greater commitment to more active involvement in project management. This was evidenced by a revamping of the project management organization, acquisition of more and more experienced personnel, and renewed dedication to effective project leadership and management. (TR. Vol. XVII, p. 4820).

In his report, Mr. Flaherty described the level of management participation during the completion phase of the project:

> The level of direction and participation has continued to increase to the point now where KG&E employees and/or contractors have been secunded directly into the DIC organization, with the concurrence of DIC management, in order to expedite com-

pletion of the project. Highly experienced nuclear personnel have been brought in during the last 1-2 years. (TR. Vol. XVII, p. 4799).

6. Mr. Huston stated that fuel load began at Wolf Creek on March 12, 1985. (Exhibit G-KGE-175, RGS-0103, p. 2).

7. Mr. James Haines, Counsel for Kansas Gas and Electric, announced that the Wolf Creek Generating Station went critical at 7:45, May 22, 1985. (TR. Vol. VIII, p. 2008).

8. The Commission finds the evidence persuasive that during the final stages of the project, 1983 to present, the owners sought to continue the improved management performance that had been attained in the prior period from 1981 through 1982. Through an increased level of commitment and attention to project needs, the owners achieved a higher degree of management effectiveness that had been lacking in the prior phases of the project. The Commission further finds that the increased efforts resulted in commensurately favorable progress and achievement in the completion stage of the project.

C. *QUANTITATIVE ANALYSIS—COST*

1. In the Management Performance Evaluation, the owners presented a comparative analysis of Wolf Creek utilizing a narrative, supplemented by charts, to compare certain variables regarding schedule and costs at Wolf Creek to similar variables at other nuclear power plants. The owners contend that their analysis presents the most objective evidence of the effectiveness of management performance at Wolf Creek. We find, however, that the owners' analysis is flawed by limitations in the survey methods used to obtain data, that in some instances the data were incomplete, misleading, or irrelevant, and do not support the owners' conclusions. We reject the suggestion that comparisons of statistical data provide proof

of the quality of management performance at any project. The statistics merely offer numerical comparisons of certain variables and do not provide evidence of prudent management action or guidance to direct and control the project or to mitigate potentially harmful situations.

2. Another method used by the owners to determine the prudence of the costs incurred at Wolf Creek was to analyze in detail the reasons for the manhour and cost increases. A reconciliation group consisting of employees of Bechtel, Daniel and KG&E provided this analysis for the owners by first attempting to reconcile the cost and manhour overruns between the Definitive Estimate and the 1983 Forecast. A second major reconciliation effort was undertaken to reconcile manhour and cost overruns between the Definitive Estimate and the 1985 Forecast. Due to the owners' belief that the 1983 reconciliations were not complete and contained many errors, the 1985 reconciliation effort utilized different methodologies to analyze the manhour and cost overruns. The owners contend that the 1985 reconciliation contained updated information and reconciled every manhour increase from the definitive estimate. The reasons cited and quantified in the 1983 Forecast and 1985 Forecast reconciliation packages are summarized into broad categories in the owners' Reconciliation Management Summary, an exhibit presented by the owners' witness, Charles Huston. In addition to the original 1983 and 1985 Forecast Reconciliations, the owners prepared an "updated" reconciliation to the 1983 Forecast. This reconciliation basically assigns the same reasons for the variances which were identified in the 1985 Forecast and uses 1983 actual quantities or prorates the reasons to reconcile the 1983 Forecast variance. The owners contend that based on their reconciliation efforts, all manhour and cost increases were prudently incurred. However, we note that the owners' witness Huston identified a net 1,866,000 manhours due to lower than average productivity in the

construction of WCGS. This increased total project cost by $28,359,000. (Exhibit G-KGE-1, MPE, p. 250).

3. We have examined the owners' reconciliation analyses. We find that the cost tracking system in place at Wolf Creek was not sufficiently developed and utilized to permit the identification and quantification of the causes for manhour variances in many instances. The cost tracking system contained obvious inadequacies by its failure to capture costs at a detailed level and also its failure to identify reasons for costs overruns at a broader level. For example, the reconciliation group was unable to ascertain, from the project's cost tracking system, the actual amount of payroll taxes and insurance included in the 1985 Forecast for a particular area. Also, the cost tracking system lacked the capability to determine unit rates in certain areas. The owners alleged that a cost system to precisely track every reason for every increased manhour would not have been cost beneficial. They estimated the cost for such a system at $200 million. This amount was calculated by taking 10 percent of the projected project cost minus AFUDC. (Fouts, TR. Vol. XXXV, p. 10516). We find that estimating the costs of a cost system in this manner does not produce a reliable estimate for such a cost system. We also find that the owners failed to adequately analyze other alternatives for designing and implementing a cost system which would provide reliable data to document and quantify the causes of overruns. We believe the owners acted imprudently in not developing and utilizing a cost tracking system which would enable the owners to accurately identify and quantify causes for overruns. This is an essential responsibility for the owners due to the nature of the cost plus contract negotiated with Daniel International Corporation, the constructor.

4. The owners' inadequate cost tracking system resulted in a lack of substantive historical cost data to support the reconciliation process. Therefore, the reconcilia-

tion group was often required to "fill the gaps" by using Order of Magnitude estimates to quantify the causes for manhour and cost overruns. We believe these estimates utilized methods which failed to adequately support the identification and quantification of such overruns.

5. One method used extensively throughout the reconciliation to the 1985 Forecast was the quantification of manhours by subtraction. Under this method, a large number of manhours were reconciled with no supporting documentation, and other reasons which contributed to the manhour variance were concealed at the owners' discretion. Interviews were also relied upon extensively in the 1983 and 1985 reconciliation packages, often without any other supporting documentation. Sometimes interview information was ignored by the Reconciliation Group although it may have been corroborated. Contrary to the owners assertions, we find that not all manhours were adequately reconciled in the 1985 Forecast reconciliation and updated 1983 reconciliation. This is due to the widespread use of the subtraction method and because unreconciled manhours were often reclassified by other terms such as "remaining activities." It is also our finding that some of the methods employed in the reconciliation process were too simplistic to provide meaningful estimates.

6. We also find that it was not the purpose of the Reconciliation Group to determine the prudence of manhours and cost overruns. Charles Linderman, the manager of the Reconciliation Group, testified that the group did not possess the qualifications to determine if the overruns were imprudently incurred. We conclude that the owners' reconciliations of cost and manhour overruns fail to reliably and accurately assess the causes for such increases.

7. Project Management Associates (PMA), serving as special staff, prepared an independent analysis of the manhour increases between the Definitive Estimate and

the 1983 Forecast. PMA analyzed cost overruns in the following nuclear cost categories:

(1) piping and whip restraints;

(2) mechanical systems;

(3) heating, ventilating and air conditioning systems;

(4) electrical systems and instrumentation;

(5) structural steel;

(6) special finishes;

(7) site work; and

(8) concrete.

8. PMA recommended that 4,036,723 manhours be disallowed because they were either imprudently incurred, unreconciled, or were attributable to causes which were controllable by owner management, and that the value of the WCGS plant be reduced by $82,570,600, for ratemaking purposes, to reflect such disallowance.

9. The methodology employed by PMA in quantifying unreasonable overruns consisted of three major steps. First, the definitive estimate and the 1983 forecast were analyzed in detail in order to identify quantities, unit manhour rates, and reported percentages of completion at the time the 1983 forecast was developed. Second, indicators of cost performance disclosed by the owners' "Reconciliation Packages", response to data requests, and a study of design change documents and extra work items were analyzed to identify reported or potential events which would represent causes for overruns. Third, PMA conducted a study to quantify the manhour overruns which could be attributed to causes of cost increases singled out. In most instances the development by staff of a completely independent estimate of the impact of specific cost causation was required due to inaccuracies in

the approach of the owners' reconciliation packages or due to deficiencies in Daniel's cost control system. PMA was unable to reconcile all of the manhour overruns due to deficiencies in Daniel's cost control system and the inadequacies of the owners' reconciliation packages. PMA recommended disallowance of all such unreconciled manhours.

10. The owners presented evidence in their rebuttal testimony to refute the disallowances recommended by PMA. We find that PMA utilized sound methodology and that generally PMA's manhour and cost disallowances are supportable. We have examined each PMA proposed disallowance as well as the owners' rebuttal to it. With the following exceptions, we find PMA's analysis and recommendations reasonable and proper. The following contentions of the owners have merit. Therefore, we find PMA's recommended manhour and cost disallowance should be adjusted as follows:

(A) Piping Area:

(1) PMA incorrectly used quantities to pro-rate manhours to develop their manhour reconciliation for capping and uncapping welds. The effect of this adjustment is to reduce PMA's disallowance by 349,131 direct manhours and $7,561,900 in direct and indirect costs.

(2) The owners' cleanliness program was necessary and not overzealous in the piping area as alleged by PMA. This adjustment reduces PMA's disallowance by 28,320 direct manhours or $613,400 direct and associated indirect costs.

(3) The manhours budgeted for construction completion were reasonably expended and should be allowed. This adjustment reduces PMA's disallowance by 838,000 direct manhours and

$18,151,200 in direct and associated indirect costs.

(4) In reconciling whip restraints, PMA used incorrect definitive estimate amounts and did not properly account for the manhour variance. This adjustment reduces PMA's disallowance by 94,200 direct manhours and $2,040,300 in direct and indirect costs.

(B) Structural Steel Area:

(1) PMA did not consider the effects of lighter weight steel used in the erection of structural steel which resulted in more members to install than was anticipated in the Definitive Estimate. This adjustment reduces PMA's disallowance by 153,388 direct manhours and $3,070,700 in direct and indirect costs.

(2) PMA did not consider the effects of lighter weight steel in the Miscellaneous Steel category. This adjustment reduces PMA's disallowance by an additional 38,002 direct manhours and $760,700 in direct and indirect costs.

(3) PMA used an incorrect unit rate for installation of trumplets. This adjustment reduces PMA's disallowance by 4,720 direct manhours and $94,400 in direct and indirect costs.

(C) Electrical Area:

(1) PMA used incorrect 1983 Forecast quantities by failing to include 587,345 LF of cable. This adjustment reduces PMA's disallowance by 65,500 direct manhours and $1,440,900 of direct and indirect costs.

(2) PMA overstated the definitive estimate manhours for the installation of penetrations.

This adjustment increases PMA's disallowance by 8,830 direct manhours and $194,300 of direct and indirect costs.

(3) PMA used incorrect Definitive Estimate and 1983 Forecast manhours for final system check, which is included in Miscellaneous Items. This adjustment reduces PMA's disallowance by 8,920 direct manhours and $196,237 of direct and indirect costs.

(D) Building Finishes Area:

(1) PMA used incorrect Definitive Estimate and 1983 Forecast manhours to reconcile doors. Also, PMA did not consider the effect of repairs and replacement of doors, the additional safety and security requirements, and design changes which resulted in additional handling and manhours to install. This adjustment reduces PMA's disallowance by 27,798 direct manhours and $525,800 in direct and indirect costs.

(2) PMA did not consider that additional penetrations were necessary to accommodate design changes for additional security monitoring equipment in the roofing area. This adjustment reduces PMA's disallowance by 538 direct manhours and $10,200 in direct and indirect costs.

(E) Concrete Area:

(1) PMA used insufficient complexity factors to reconcile manhours required for construction openings and out-of-sequence openings. This adjustment reduces PMA's disallowance by 58,038 direct manhours and $956,110 in direct and indirect costs.

(2) The productivity rate used by PMA to estimate the effects of cold weather was insufficient. This adjustment reduces PMA's disallowance by 68,128 direct manhours and $1,122,390 in direct and indirect costs.

(3) PMA incorrectly assumed that manhours for reinforcing steel fabrication shop were included in work authorizations. Additionally, PMA allocated insufficient manhours to the on-site fabrication shop. This adjustment reduces PMA's disallowance by 402,908 direct manhours and $6,595,290 in direct and indirect costs.

(F) HVAC Area:

(1) PMA incorrectly transferred 8,910 manhours which should have remained in the HVAC area. This adjustment increases PMA's disallowance by 8,910 direct manhours and $186,000 in direct and indirect costs.

(2) PMA should have allowed additional manhours for design changes in reconciling ducts and supports. This adjustment reduces PMA's disallowance by 32,000 direct manhours and $668,000 direct and indirect costs.

(3) PMA incorrectly disallowed manhours for converting Non-Q duct to II/I based on Corrective Action Report 13, due to the fact that CAR-13 applies only to the piping area. This adjustment reduces PMA's disallowance by 10,500 direct manhours and $219,300 direct and indirect costs.

(4) PMA used an incorrect normative rate for duct and supports. This adjustment reduces PMA's disallowance by 24,210 direct manhours and $505,500 direct and indirect costs.

(5) PMA disallowed certain manhours associated with changes to equipment and accessories. These unreconciled members are found to have been justifiably expended. This adjustment reduces PMA's disallowance by 21,900 direct manhours and $457,200 direct and indirect costs.

11. The total net effect of the adjustments in the above areas is to reduce PMA's disallowance by 2,208,461 direct manhours and $44,609,200 direct and indirect costs. We find that out of the total PMA recommended disallowance of construction costs of 4,036,723 direct manhours and $82,570,600 direct and indirect costs, a total of 1,828,262 direct manhours were imprudently incurred, either because those manhours resulted from imprudent management actions, were controllable by management, or were not reconcilable due to deficiencies in the owners' cost tracking systems. This finding is confirmed by the testimony of Mr. Huston that a net 1,866,000 manhours at the WCGS were incurred due to lower than average productivity. Therefore, we find that the related direct and indirect costs of $17,841,858 should be excluded from both a return on and recovery of KG&E's share of its investment in Wolf Creek. We find that $17,841,858 should be excluded from both a return on and recovery of KCPL's share of its investment in Wolf Creek. We find that $2,277,684 should be excluded from both a return on and recovery of KEPCo's share of its Wolf Creek investment.

12. We find that DIC received fees which were based on the total scope of work as defined in its contract. Portions of the work scope such as instrumentation installation were subsequently removed from DIC's control. Based upon this finding, we conclude that an additional $450,000 was imprudently incurred as fees paid to DIC for work which they did not perform or administrate, but which was performed by other contractors. (Huston, TR. Vol. IV, p. 1005). For this reason we find that

$211,500 should be excluded from both a return on and recovery of KG&E's share of its investment in Wolf Creek, $211,500 should be excluded from both a return on and recovery of KCPL's share of its investment in Wolf Creek, and $27,000 should be excluded from both a return on and recovery of KEPCo's share of its investment in Wolf Creek.

D. *QUANTITATIVE ANALYSIS—SCHEDULING*

1. We find that the owners of Wolf Creek have not presented any detailed reconciliation or analysis of the schedule slippage that occurred at the Wolf Creek construction project.

2. The owners did compare the overall schedule at Wolf Creek to other nuclear power plant construction schedules. They conclude that Wolf Creek's shorter construction schedule is evidence of management prudence. We do not believe such a comparison can be so conclusive. Comparing one plant to other plants in the industry does not adjust for inconsistencies among the plants. Wolf Creek may have had a shorter schedule than other plants, but we find, based on PMA's analysis, that it had a longer schedule than it should have had because the owners failed to avoid or mitigate controllable delay. In addition, we find the owners' comparative analysis contained basic flaws in the manner in which it was conducted, as pointed out in staff's brief, pages 223-241.

3. We have examined the scheduled analysis that was performed independently by PMA using information gathered through data requests and interviews. PMA reviewed the Wolf Creek construction schedule from the start of construction in February 1977 through February 1984, when fuel load was scheduled to begin in October 1984. In February 1977, fuel load was expected to begin in May 1982. By comparing the original schedule to the February 1984 schedule, PMA found a 27

month difference in schedule duration to the point of fuel load. PMA's analysis of the change in the schedule duration is based on the critical path method. A critical path is the longest, time-wise, chain of logically interrelated activities in a schedule network. PMA's research included consideration of numerous activities and critical paths, but PMA selected only the three most critical paths for detailed anlysis because PMA determined that these contained the activities that were in a logical sequence from receipt of the limited work authorization (LWA) to the date of fuel load as projected in the February 1984 construction schedule.

4. The three most critical paths start with the reactor building civil/structural work and flow through three separate reactor building mechanical system activities and are followed by preoperational testing and fuel load. The three major reactor building mechanical systems that were examined in detail include the reactor coolant system, the chemical and volume control system and the component cooling system. PMA determined what part of the schedule slippage on each sequence was uncontrollable, controllable, unreconciled, and mitigated (gain in schedule). PMA considered all increases in scope (quantity) to be the result of uncontrollable slippage, and thus recommended that this slippage be allowed. Uncontrollable slippage was based on the added quantities times the definitive estimate unit rate. The owners criticized PMA's use of the Definitive Estimate (D.E.) unit rate as not adequately allowing for uncontrollable slippage due to increased complexity. We have examined PMA's computations and find that in multiplying the Definitive Estimate unit rate times the 1980 and 1985 quantities, PMA reasonably accounted for quantity and complexity increases among the heterogeneous commodities. We find that PMA properly accounted for uncontrollable slippage in this manner. Controllable and unreconciled slippage is disallowed in PMA's analysis, but only after it is off-

set by schedule mitigations or gains. In other words, all months of mitigation or gain are applied against controllable and unreconciled slippage to reduce the amount of disallowed schedule slippage. Controllable slippage was calculated using an average unit rate taken from the owner's Management Performance Evaluation (MPE). (Exhibit G-KG&E-1). The average unit rate was applied to the change in quantities between 1980 (when quantities were first accumulated by area) and 1985 (the latest available forecasted quantities). This yielded the manhours attributable to productivity change. We find that PMA's use of the industry average unit rates in the MPE is reasonable.

5. Of the three critical path sequences analyzed, PMA selected the one with the greatest uncontrollable slippage, because even if the project had experienced no controllable delay, there still would have been a 14.5 month delay for reasons beyond the owner's control. Using this analysis, PMA determined that in the sequence with the greatest uncontrollable delay, 14.5 months were uncontrollable, 37 months controllable, 1 month unreconciled, and 23.5 months were mitigated. PMA applied the 23.5 month gain as an offset to the 38 month controllable and unreconciled schedule delay to yield a net 14.5 month controllable delay. After examining this analysis in detail, we find it to have merit.

6. PMA identified numerous deficiencies and shortcomings with the DIC scheduling system. (Exhibit G-Staff-77, Schedule Report). This necessitated PMA's independent analysis. The owners have criticized PMA's methods as being mechanical, and as failing to include an analysis of all the critical paths. We find no merit to these criticisms. PMA's analysis extended through February 1984. At that point, the Construction Intermediate Schedule (CIS) projected a fuel load date of October 1984. PMA chose this cutoff because this was the time that DIC discontinued updating and incorporating

progress into its computerized construction schedule network. (Exhibit-Staff-77, Schedule Report p. 3).

7. The owners' witness, Mr. Huston, has offered an exhibit containing a list of numerous design change packages (DCPs) with construction completion dates beyond the October 1984 fuel load date. Mr. Huston concludes that regulatory change prevented the owners from loading fuel in October of 1984. The Commission does not find such a conclusion is warranted from that exhibit. (Exhibit-G-KG&E-175). We believe that if activities were critical to the October 1984 fuel load, the owners' February 1984 CIS schedule would have reflected them. There is no analysis given by Mr. Huston whether the activities listed on his exhibit are necessary for fuel load and, if they were necessary, whether they could not have been completed by the October 1984 fuel load date. The exhibit only indicates that in March 1985, some of the activities had not been completed to meet the October 1984 fuel load date, although in some cases the engineering was completed much earlier. There is no substantial evidence that PMA failed to consider all activities that affected the critical path. Indeed, we find that PMA did consider those activities on the critical path. (Exhibit G-Staff-77, p. 3; TR. Vol. XX, p. 5703; p. 5784-5785).

8. We therefore find that 14.5 months of the schedule slippage were within the control of the owners, and that the costs associated with such delay should be excluded as imprudent.

9. The issue of how to quantify the costs associated with the controllable schedule delay must be addressed next. PMA's analysis used the AFUDC and indirect/overhead costs associated with the last 14.5 months of the project given the October 1984 fuel load date. PMA consulted the owners' Wolf Creek "projected construction expenditures" to obtain the AFUDC amounts for the

last 14.5 months preceding the October 1984 fuel load date. (Exhibit-Staff-77, Schedule Report, p. 51). The total, $285,878,400, was distributed among the owners using the owners' recorded allocation. To this amount of AFUDC, PMA added a similarly computed amount, $78,372,400, for indirect/overhead costs attributable to the 14.5 months controllable slippage. PMA reasoned that these amounts appropriately measured the cost of controllable delay because these costs were time related, that is, these costs continued to accumulate as the schedule was extended.

10. We find that PMA reasonably quantified the indirect/overhead costs attributable to the controllable delay because these costs accumulating at the end of the project would not have been incurred if the controllable slippage had been eliminated. We direct that the indirect/overhead cost be apportioned among the owners according to their percentage shares of WCGS: KG&E: $36,835,028; KCPL: $36,835,028; KEPCo: $4,702,344.

11. Applicants contend that even if there were avoidable delays in construction of Wolf Creek, exclusion of AFUDC is not a proper remedy. Witness Fairchild contended that ratepayers are not harmed by delays in construction unless their time value of money is less than the AFUDC accrual rate of the utilities. Fairchild suggested that implicit in the statutory policy to exclude CWIP from inclusion in rate base is a determination to the contrary; i.e., ratepayers have a greater time value of money than the AFUDC accrual rate. (TR. Vol. XXXII, p. 9637).

12. Witness DeStefano for KCPL argued that any disallowance for schedule slippage should be offset by the benefit to ratepayers in not paying increased rates earlier. His analysis showed that at a ratepayer discount rate of 10.14 percent, ratepayers would be indifferent to "either currently rate basing the full capital cost of $1,367.2 million requested in this case or rate basing a

capital cost of $1,187.5 million 14.5 months earlier." (TR. Vol. XXXVII, p. 11035).

13. Mr. Fairchild also disputes the use of AFUDC accumulated at the end of the project to quantify the costs of delays that occurred earlier in the project. He analyzed the controllable schedule delays calculated by PMA and testified that part of the controllable delay occurred from December 1978 through July 1979, part in 1980, and part between 1980 and 1984. Mr. Fairchild recalculated the AFUDC that would have been incurred had there been no delay, and determined the difference between actual versus no delay using the midpoint of each period to quantify the AFUDC. This method determined that $166,189,000 is the proper amount of AFUDC to be attributed to the 14.5 month controllable delay.

14. Both Mr. Fairchild's and Mr. DeStefano's arguments that exclusion of AFUDC is not a proper remedy, suffer from infirmities. Mr. Fairchild assumes without proof that ratepayers have a higher time value of money than the utilities, while Mr. DeStefano made mathematical errors and questionable assumptions. However, we find it necessary to only address the conceptual arguments. Both witnesses basically argue that if the construction schedule had not encountered delays, ratepayers may have had to pay for a lower cost plant but they would have had to pay for it earlier. Consequently, the argument goes, ratepayers benefited from the delays because they had use of their money longer than would have been the case with earlier completion of the project.

15. In this portion of the order, the Commission is determining what Wolf Creek plant construction costs are reasonable. This assumes that a utility, in constructing a plant, has an obligation to build the facility in an efficient manner and at a reasonable cost. There is no question that delays in the construction schedule increase the total costs of the plant, just as much as increases in

direct costs of the plant. It strains credibility to suggest that when the total costs of the plant increase unreasonably, the ratepayers are not harmed because they avoid paying for the plant earlier. Such a determination would mean that utilities have no incentive to finish projects without unnecessary delays because increases in costs would be passed on automatically to ratepayers. Utilities could prolong construction indefinitely without facing any consequences of inefficient or unreasonable construction management practices.

16. This is not to suggest that recognition of the ratepayers' time value of money is always inappropriate. Clearly, in some circumstances, it is a factor which must be considered. In this context, however, it is not reasonable to even attempt to determine whether ratepayers benefited from construction delays. In addition to posing the wrong question, such an analysis requires questionable assumptions to be made. For instance, Mr. DeStefano's analysis assumed full rate base treatment of Wolf Creek under both the February 1984 and April 1985 completion date scenarios. Given our decisions in other portions of this order, such assumptions are unwarranted. We cannot speculate what rate base treatment would have been accorded Wolf Creek had it been completed fourteen and one-half months earlier. We may safely assume, however, that under the considerations we apply today, the treatment of Wolf Creek could vary over time. We find that exclusion of AFUDC associated with the controllable delay is a reasonable method of quantifying the cost of that delay.

17. We recognize that there is no single precise method of quantifying the AFUDC costs of controllable slippage at the Wolf Creek project. Although we find merit in Mr. Fairchild's quantification method, we are not completely without reservation concerning its use. First, it quantifies the AFUDC based on expenditures to date rather than total projected costs. Historically,

the percentage of AFUDC expenditures has lagged behind the percentage of construction complete. In this manner Mr. Fairchild's analysis may understate the amount of AFUDC attributable to the delay since the entire project, not merely a portion of it, was delayed. Second, we believe that increases in actual direct costs could be associated with the delays which might be included in PMA's determination. Indeed, applicant's arguments ignore the fact that construction delays allow inflationary impacts to increase the costs of construction beyond the increased AFUDC. Third, Mr. Fairchild's analysis ignores the increased cost of capital to the owners which resulted as completion of the project was delayed.

18. Nevertheless, we conclude that Mr. Fairchild's quantification of AFUDC is a more reasonable proxy of the AFUDC costs associated with the controllable schedule delay than the PMA analysis. The PMA analysis, we believe, overstates the amount of AFUDC attributable to controllable delay. We find determining the difference between actual and what should have been incurred had no delay occurred, is the more reasonable method of quantifying controllable schedule slippage. The $166,189,000 of AFUDC calculated shall be apportioned among the owners as allocated by Mr. Fairchild in his analysis: KG&E: $73,286,000; KCPL: $77,092,000; KEPCo: $15,811,000. (Tr. Vol. XXXII, p. 9636).

19. To this amount of AFUDC, we must add the indirect/overhead costs calculated by PMA as associated with the controllable delay. This yields a total of $244,561,400 as the cost of the 14.5 months controllable schedule slippage. We find that this amount should be excluded from total WCGS construction costs. When the disallowed costs are apportioned among the owners as directed above, each owner's share of WCGS construction costs disallowed as inefficiently and imprudently incurred, is as follows: KG&E: $110,121,028; KCPL:

$113,927,028; KEPCo: $20,513,344. We deny recovery of and a return on this part of each respective owners' investment in WCGS.

V. NEED FOR CAPACITY

A. *INTRODUCTION*

1. The Commission has received and considered with interest the testimony and exhibits of Dr. Richard A. Rosen in these proceedings concerning the economic loss expected to be incurred as a result of the commercial operation of Wolf Creek. (Rosen, TR. Vol. XXIII, XXIV, and XXV). As indicated *infra*, the Commission's findings implicitly accept Dr. Rosen's conclusions that large economic losses would result to the customers of KCPL from full rate base treatment of Wolf Creek, that Wolf Creek represents excessively expensive capacity, and that risk sharing principles should be applied in these dockets to properly apportion responsibility for excessive costs between KCPL ratepayers and shareholders. The Commission has been influenced, however, by the argument in KCPL's brief that:

> Dr. Rosen admits that his analysis is subject to "considerable uncertainty" in its underlying projections. (TR. XXIII, 6771). He also admits that his analysis becomes even more uncertain as it goes out in time. (KCPL Brief, p. 107).

In the view of the Commission, projections made by KCPL witnesses on the same subject are vulnerable to the criticisms KCPL has leveled at Dr. Rosen. Additionally, it appears to the Commission that KCPL witnesses proposed projections much more questionable than those sponsored by Dr. Rosen, (for instance, Fitzpatrick, TR. Vol. XXVII and XXVIII; Branca, TR. Vol. XXXVI). Nevertheless, the Commission finds that the life cycle cost analyses presented are subject to a degree of uncertainty and the Commission chooses to base its

decision on what it believes to be a more objective standard.

2. The Commission finds that analysis of the need for Wolf Creek capacity and the reasonableness of the cost of Wolf Creek capacity should be addressed independently. KCPL's need for Wolf Creek capacity will be addressed in this section of the Order. The remaining question of the reasonableness of the cost of Wolf Creek capacity will be addressed in Section VI of the Order.

B. *APPLICATION OF THE "USED AND REQUIRED TO BE USED STANDARDS".*

1. K.S.A. 1984 Supp. 66-128 provides, in pertinent part, that the Commission:

> . . . shall determine the reasonable value of all or whatever fraction or percentage of the property of any common carrier or public utility governed by the provisions of this act which property is *used and required to be used* in its services to the public within the state of Kansas, whenever the commission deems the ascertainment of such value necessary in order to enable the Commission to fix fair and reasonable rates, joint rates, tolls and charges. (Emphasis added).

The Commission deems the ascertainment of the reasonable value of public utility property to be necessary in these dockets in which KCPL seeks a return of and a return on investment and, consequently, the Commission deems it appropriate to determine whether all or a fraction or percentage of KCPL's interest in Wolf Creek is used and required to be used in its services to the public.

2. If public utility property is not found to be used and required to be used, a deferral or "phase-in" of costs into rate base and an exclusion of carrying costs on the value of property deferred is permissible in accordance

with the terms of K.S.A. 1984 Supp. 66-128b which provides as follows:

> The Commission may require a public utility to defer inclusion of all or any portion of the reasonable value of property determined not currently used and required to be used and may require the phase-in of such value over any period of time and in such increments as it determines to be appropriate. If the Commission requires a public utility to defer the inclusion of any portion of such reasonable value and orders a phase-in of such value, it may exclude any or all of the carrying or finance costs incurred after the date of its determination and throughout the period of any deferral or phase-in as so ordered.

However, if the Commission determines that all or a portion of the costs of acquisition, construction, or operation of a generating facility were incurred due to a lack of efficiency or prudence or were incurred in the acquisition or construction of excess capacity, then the Commission may exclude all or a portion of such costs from eligibility for recovery through rates in accordance with K.S.A. 1984 Supp. 66-128c which provides as follows:

> The state corporation commission, in determining the reasonable value of property under K.S.A. 66-128, and amendments thereto, shall have the power to evaluate the efficiency or prudence of acquisition, construction or operating practices of that utility. In the event the state corporation commission determines that a portion of the costs of acquisition, construction or operation were incurred due in whole or in part to a lack of efficiency or prudence, or were incurred in the acquisition or construction of excess capacity, it shall have the power and authority to exclude all or a portion of those costs from the revenue requested by the utility.
>
> For the purpose of this act, "excess capacity" means any capacity in excess of the amount used

and required to be used to provide adequate and reliable service to the public within the state of Kansas as determined by the commission. The commission may in its discretion prohibit or reduce the return on costs which were incurred in constructing, maintaining or operating excess capacity.

3. With the exception of Hawthorn Units 1 through 4, each generating facility on the KCPL system, including Wolf Creek, will be employed in the near term to serve KCPL system energy requirements. (Evans, TR. Vol. XIV, p. 4140; KCPL Brief, p. 94). The fact that Wolf Creek should perform at a relatively low incremental operating cost, thereby requiring its use from an economic dispatch perspective, is implicit in Dr. Rosen's prospective Wolf Creek-In economic analysis which dispatches each of KCPL's units (Rosen, TR. Vol. XXIII, XXIV, and XXV) and was explicitly confirmed by KCPL witness Evans (Evans, TR. Vol. XIV, p. 4141). No party has argued that Wolf Creek will not be used to provide service to KCPL's customers. The Commission finds that Wolf Creek will be "used" by KCPL within the intent of K.S.A. 1984 Supp. 66-128 *et seq.*

4. Whether Wolf Creek is "required to be used" by KCPL in its services to the public within the State of Kansas is dependent upon a number of factors which do not remain static over time. As a result, the Commission's findings concerning the degree to which Wolf Creek is required to be used by KCPL must necessarily be revisited in subsequent rate proceedings as system characteristics such as available capacity and demand change. On one prior occasion the Commission interpreted and applied the "used and required to be used" standard to the application of an electric utility seeking partial rate base treatment and phase-in of a new generating facility. *In the Matter of the Application of Sunflower Electric Cooperative, Inc.*, Docket No. 143,069-

U, 84-SNFE-369-R, the Commission considered the ratio of Sunflower's peak demand plus reserves to its available capacity. The Commission found that:

> (t)hese indicators suggest that a percentage of the Holcolmb Unit approaching but slightly less than 60% is currently used and required to be used. (KCPL Brief, p. V-5).

The "indicators" employed by the Commission in the *Sunflower* case are suitable for application in the captioned dockets because the question of whether generating capacity is "required to be used" cannot be determined in the absence of an analysis of peak demand, reserve margin and available capacity.

5. Peak responsibility must necessarily be quantified with reference to a particular point in time. KCPL has correctly noted in its brief that:

> As was noted more fully in Section II above, this Commission and the Kansas Supreme Court have recognized that "electric utilities must plan for the future," and "to construct generating plants only when the need arises is, of course, ridiculous, and to construct it only for those needs without anticipating future growth would be even more ridiculous." *Kansas Gas & Electric Company v. State Corporation Commission*, 218 Kan. 670, 544 P.2d 1396, 1402 (1976). (KCPL Brief, p. 94).

Due to the fact that baseload generating facilities are not likely to be brought into service in discrete segments exactly paralleling changes in demand (Doyle, TR. Vol. XIII, p. 3567), the Commission believes that an analysis of peak responsibility for the purpose of identifying facilities "required to be used" must incorporate a planning horizon perspective. To hold otherwise would create a future disincentive to the construction of facilities which constitute the most economic type of capacity for

the particular system on a *scale* that would provide additional economies to the system.

6. Dr. Rosen filed in these proceedings a KCPL load and capability forecast for the nine year period 1985-1993. [Exhibit G-Staff-127 (RAR-4.4)]. The selection of a forecasted reference year for an analysis of peak responsibility is made somewhat more difficult by the fact that no witness in these proceedings proposed specific standards for the selection of such a reference point. In the absence of such specific standards, the Commission finds it reasonable to select a forecasted reference year from a range of years between one-half and two-thirds of the duration of the KCPL load forecast. Due also to the absence of evidence concerning specific standards, the Commission chooses to select as the reference year the final year of the range it has found reasonable. Use of 1990 as a reference year for this analysis allows for five years of projected growth in peak demand. Five years roughly corresponds to the period required to put into operation a combustion turbine peaking unit which is an appropriate consideration in this case. It is apparent from the record that applicant not only has no actual current need for capacity, but had no projected need during much of the time Wolf Creek was being constructed. Instead, the decisions to construct and continue were based on other factors. It is consequently evident that purely from a need for capacity perspective, applicant's facilities were sufficient to meet projected demand and it could have met unexpected changes in forecasted demand by construction of a combustion turbine peaking unit. It is reasonable, therefore, to allow a five year planning period. Exhibit G-Staff-127 (RAR-4.4) indicates that KCPL's forecasted peak responsibility for 1990 will be 2,324 megawatts.

7. The question of the appropriate reserve margin to be allowed KCPL in determining the degree to which Wolf Creek is "required to be used" received the atten-

tion of a number of witnesses. In the view of the Commission, sole reliance upon the reserve requirement of 15 percent established by the MOKAN power pool for its members as an indicator of the appropriate utility-specific reliability reserve is inappropriate as demonstrated by the testimony of Mr. Limmer:

> The MOKAN Power Pool agrees on 15 percent as a minimum reserve under which if somebody comes under that, that they would have to pay an equalization payment. (Limmer, TR. Vol. XV, p. 4262).

Evidence presented by KCPL indicated that the minimum reserve capacity necessary to provide adequate and reliable service for the KCPL system is 23 percent (Limmer, TR. Vol. XV, p. 4259). KCPL, however, is apparently advancing only a 22 percent reserve margin (Evans, TR. Vol. XV, p. 4190-4191). Based upon a reliability analysis prepared by Dr. Rosen, the staff presented evidence indicating that both KG&E and KCPL require a 22 percent reserve margin with Wolf Creek in operation and a 15 percent reserve margin without Wolf Creek in operation. (Rosen, TR. Vol. XXIII, p. 6600-6609). Dr. Rosen noted, however, that based upon his system reliability analysis of both KG&E and KCPL, a 15 percent reserve margin is satisfactory for maintaining adequate system reliability and that reserves in excess of 15 percent should be justified on economic, not reliability, grounds. (Rosen, TR. Vol. XXIII, p. 6617). As indicated in Section VI of this Order, the Commission has found that Wolf Creek capacity is not fully cost justified in relation to alternative generation resources at the present time and that the risk-sharing principles advocated by Dr. Rosen (Rosen, TR. Vol. XXIII, p. 6712-6734) are reasonable and require allocation of responsibility for excessive capacity costs between KCPL's shareholders and ratepayers. Because Wolf Creek is not fully justified on economic grounds, the Commission finds that ratepayer responsibility for a full 22 to 23 percent

reserve margin is unreasonable and that the risk-sharing principles of Dr. Rosen discussed fully, *infra*, require an allocation of responsibility for necessary reserves between ratepayers and shareholders. The Commission's finding is supported by the fact that:

> For KCPL, almost one-third of its share of Wolf Creek's capacity (about 168 MW in 1992) is needed solely to provide the seven percent increase in required system reserves directly caused by Wolf Creek itself (peak load is forecast at about 2400). [Rosen, TR. Vol. XXIII, p. 6617-6618].

8. Dr. Rosen testified that a 15 to 20 percent reserve margin was normally deemed adequate for a large, well interconnected system (Rosen, TR. Vol. XXIII, p. 6602) and that:

> . . . most well interconnected utility systems in the U.S. plan on the basis of reserve margins in the 15 to 20 percent range for reliability. (Rosen, TR. Vol. XXIII, p. 6609).

Mr. Lanzalotta testified that "15 to 20 percent is by far the predominant target planning level for utility reserve margins in the central U.S. region" (Lanzalotta, TR. Vol. A-7, p. 1599). Dr. Rosen noted that reserve margins slightly above 20 percent may be required in certain circumstances, particularly if the system relies heavily upon large nuclear units which have relatively high outage rates, but that the degree of interconnection with other utility systems could moderate the impact because:

> . . . with sufficient interconnection even heavily nuclear utilities may not need high reserves. One such utility, Commonwealth Edison, plans its system on the basis of a 15 percent reserve margin for reliability purposes. (Rosen, TR. Vol. XXIII, p. 6602-6603).

Dr. Rosen concluded that certain important features of the MOKAN Power Pool and the Wolf Creek co-owners systems tend to situate the companies at the low end of the 15 to 20 percent reserve requirement range because the systems tend to have greater or equal levels of reliability at lower levels of reserves. (Rosen, TR. Vol. XXIII, p. 6610). Among the features cited by Dr. Rosen are the following:

> The MOKAN Power Pool has an annual load factor of about 49 percent. This is much lower than the national average load factor of about 61 percent. . . . All three co-owners have load factors at or below 50 percent. . . . These utilities are sharply peaking in the summer. This circumstance provides substantial scope for scheduling maintenance during periods when reliability is high. The consequence of this is that very few hours during the year are likely to contribute to the loss of load probability and the peaking facilities and load management technologies are more likely to be cost-effective options for maintaining reliable service than in more typical systems. (Rosen, TR. Vol. XXIII, p. 6610).
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> * * * *
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> The MOKAN Power Pool also has a reliability advantage, as compared with many other systems, deriving from the absence, thus far, of nuclear generating facilities in the resource mix. About 70 percent of installed capacity is coal-fired, the rest being dual-fuel steam turbines and peaking facilities. Moreover, the system is dominated by a large number of relatively small generating units. (Rosen, TR. Vol. XXIII, p. 6611).
>
> * * * *
>
> Finally, the MOKAN Pool is well situated geographically for bulk power support. As part of the Southwest Power Pool or SPP (actually not a pool but a NERC regional reliability council) MOKAN has

transmission links to the Oklahoma systems, via 345 KV networks in central and eastern Oklahoma and Kansas, and via a 230 KV tie in western Kansas and the Oklahoma-Texas Panhandle region. Interties to other regional reliability councils, directly to MAPP to its north and MAIN to its east, and indirectly to others, affords the MOKAN system substantial emergency support to maintain reliable service in the event of unusual generation outages and/or load surges. Simultaneous import capability (i.e., transmission system transfer limits into MOKAN) has been estimated at above 3000 MW. (Rosen, TR. Vol. XXIII, p. 6611-6612).

Further, the Commission notes that for a number of years predating commercial operation of Wolf Creek, KCPL maintained that a 20 percent reserve was required based upon a 1980 Ebasco loss of load probability study. (Evans, TR. Vol. XIV, p. 4146). Based upon the evidence in these dockets, the Commission finds that a 15 to 20 percent reserve margin is adequate for KCPL system reliability and that, due to the commercial operation of Wolf Creek, a margin at the top of the range found adequate for system reliability should be implemented for ratemaking purposes. The Commission finds that a reserve in excess of 20 percent should be justified from an economic perspective. The Commission has found in Section VI of this order, *infra*, that Wolf Creek capacity is not fully cost justified in relation to alternative generation resources at this time.

9. Having determined that a 1990 forecasted reference year should be used to determine peak responsibility on the KCPL system, a 1990 forecasted reference year must necessarily also be used to analyze available system capacity. Exhibit G-Staff-127 (RAR 4.4) indicates that KCPL's available capacity in 1990 will be 2,973 megawatts. (*See*, also, Evans, TR. Vol. XV, p. 4305). Exhibit G-Staff-127 (RAR-4.4) assumes that Wolf Creek will be rated at a net capacity of 1117 megawatts in

accordance with the testimony of KG&E witness Lucas. (Lucas, TR. Vol. XII, p. 3104). KCPL's 1990 forecasted available system capacity of 2,973 megawatts is exclusive of the capacity represented by Hawthorn Units 1 through 4 which were "retired" in place December 31, 1984. (Trask, TR. Vol. A-7, p. 1879). "Retirement" may not be as appropriate a term to describe the status of the units as "mothballed" due to the fact that KCPL has "spent about three-quarters of a million dollars" to preserve the units for future use. (Trask, TR. Vol. A-7, p. 1893). Prior to the "retirement," Hawthorn Units 3 and 4 were placed on inactive reserve in 1983 and Units 1 and 2 were placed on inactive reserve in 1984 [Exhibit G-KCPL-46, Schedule 4; Exhibit G-Staff-127 (RAR-2.3); *See* also Evans, TR. Vol. XV, p. 4166]. Several witnesses testified that the Hawthorn units were prematurely "retired" and should be included as available capacity for the purpose of determining utility property "used and required to be used." [Rosen, TR. Vol. XXIII, p. 6543, 6621; Exhibit G-Staff-127 (RAR-4.6)]. Mr. Lanzalotta testified on behalf of the Johnson County Joint Intervenors as follows:

> KCPL has placed Hawthorn Units 1-4 in "inactive reserve" pending their planned rehabilitation sometime in the 1990's. (Lanzalotta, TR. Vol. A-7, p. 1589).
>
> * * * *
>
> KCPL has eliminated Hawthorn Units 1-4 from consideration as sources of generating capacity to KCPL in its preparation of its load/resource projections. KCPL accomplishes this by placing these units in what it terms "inactive reserve". (Lanzalotta, TR. Vol. A-7, p. 1589).
>
> * * * *
>
> I disagree with KCPL's treatment of Hawthorn Units 1-4 in its preparation of its load/resource projection. If KCPL were not in an excess capacity

situation, it would be using these units as evidenced by KCPL's plans to use these units in the 1990's when KCPL's projections indicate a need for additional capacity. (Lanzalotta, TR. Vol. A-7, p. 1589).

* * * *

By placing Hawthorn Units 1-4 in "inactive reserve" many years prior to these units' scheduled retirement, KCPL is in effect admitting that a substantial portion of the Wolf Creek capacity is excess to KCPL's capacity needs for 1985 until the scheduled retirement dates of the Hawthorn Units. (Lanzalotta, TR. Vol. A-7, p. 1590).

* * * *

KCPL has projected that the retirement dates of the Hawthorn Units 1-4 for planning purposes would range from 1991-1993. This is based upon KCPL's KCPLAN for 1981 in which KCPL states "KCPL projects retirement of fossil steam units after 40 years of service" (page 35). In the same document, KCPL lists the in-service dates for Hawthorn Units 1-4 as occurring from 1951-1953. The application of KCPL's 40-year steam unit life with the in-service dates of Hawthorn Units 1-4 (which, incidentally, are fossil-fired steam generating units) yields projected retirement dates for these units from 1991-1993.

Page 80 of KCPLAN81, which was published on October 1, 1981, lists the projected retirement dates of the Hawthorn Units 1-4. As shown on Exhibit A-JCI-28 (PJL-1), which is copied from KCPLAN 81, Hawthorn 1-2 are scheduled to be retired in 1991, Hawthorn 3 is scheduled for retirement in 1993, and Hawthorn 4 is scheduled for retirement in 1995.

KCPL's PURPA FERC Form 133 filed with the Federal Energy Regulatory Commission in 1980 lists specific projected retirement dates for Hawthorn

> Units 1-4. These projected retirement dates agree with the dates listed in the 10/1/81 KCPLAN81. Based on these sources, it seems fairly certain that as recently as 1981, KCPL planned to retire the Hawthorn Units in the 1990's. (Lanzalotta, TR. Vol. A-7, p. 1590-1591).
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> * * * *
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> Since KCPL has projected retirement of the Hawthorn Units in the early 1990's, it seems reasonable to include the capacity from these units in KCPL's load/resource projection, at least up through the time period in which the retirement of these units is forecast. (Lanzalotta, TR. Vol. A-7, p. 1592).

The testimony of KCPL witness Evans indicated that KCPL had "retired" Hawthorn Units 1 through 4 in only an accounting sense and that the units were or could be, with some rehabilitation, available for use in meeting KCPL system requirements:

> Our plans now are to rehabilitate the Hawthorn old side units at some point in time when the capacity from those units will be needed, and that rehabilitation is an alternative to the construction of new generation. So retirement in my mind is an accounting decision and the accountants have decided to retire the facilities. That doesn't preclude returning them to service in a rehabilitated state at some future point in time and that in fact is our current plan. Now, whether or not we actually do that or not, I think time and study and analysis will tell us the answer to that. (Evans, TR. Vol. A-7, p. 1854).

Based upon the evidence in the captioned dockets it appears that Hawthorn Units 1 through 4 have been "mothballed" for possible future use. At least as late as 1981, KCPL projected retirement dates for Hawthorn Units 1 through 4 subsequent to the 1990 reference year the Commission has chosen for analysis of capacity available to KCPL. The evidence indicates that the useful

life of the Hawthorn units may well be extended beyond the early to mid-1990's by anticipated rehabilitation efforts. Hawthorn Units 3 and 4 were placed in inactive reserve prior to Units 1 and 2 [Exhibit G-KCPL-46, Schedule 4; Exhibit G-Staff-127 (RAR-2.3)]. It is implicit in the schedule of placement of units in inactive reserve that Units 1 and 2 remain in a superior operating condition relative to Units 3 and 4. That conclusion is confirmed by the fact that it would cost approximately twice as much to rehabilitate each of Units 3 and 4 as it would to rehabilitate each of Units 1 and 2 (Trask, TR. Vol. A-7, p. 1880-1884). The Commission finds that the MOKAN accredited capacity of Hawthorn Units 1 and 2 shall be deemed available for use by KCPL in the 1990 reference year. The MOKAN accredited capacity of Hawthorn Units 1 and 2 collectively appears to have been 130 megawatts at the time the units were placed in inactive reserve. (Exhibit G-KCPL-46, Schedule 4). The Commission further finds that capacity available for use by KCPL shall be computed by increasing forecasted year 1990 available capacity of 2,973 megawatts [Exhibit G-Staff-127 (RAR-4.4)] by the MOKAN accredited capacity of Hawthorn Units 1 and 2 (or 130 megawatts) [Exhibit G-KCPL-46, Schedule 4] for a total of 3,103 megawatts of available capacity.

10. The Commission finds that 314 megawatts of KCPL's interest in Wolf Creek is not required to be used in its services to the public within the State of Kansas. That figure is computed as indicated below:

Available Capacity (megawatts)		3,103
Peak Responsibility in 1990 Reference Year (megawatts)	2,324	
Reserve Requirement Percentage of Peak	x .20	
Megawatts	465	
Peak plus Reserve (megawatts)		2,789
Capacity in Excess of Peak Plus Reserve (megawatts)		314

11. The Commission finds that the portion of Wolf Creek found not "required to be used" by KCPL in its services to the public within the State of Kansas in paragraph 10 above shall be ineligible to earn a return on investment in accordance with the terms of K.S.A. 1984 Supp. 66-128c which provides that:

> The state corporation commission, in determining the reasonable value of property under K.S.A. 66-128, and amendments thereto, shall have the power to evaluate the efficiency or prudence of acquisition, construction or operating practices of that utility. In the event the state corporation commission determines that a portion of the costs of acquisition, construction or operation were incurred due in whole or in part to a lack of efficiency or prudence, or were incurred in the acquisition or construction of excess capacity, it shall have the power and authority to exclude all or a portion of those costs from the revenue requested by the utility.

The Commission has found, however, at paragraph 3 of this Section, *supra*, that Wolf Creek will be used by KCPL in its services to the public within the State of Kansas as that term is contemplated by K.S.A. 1984 Supp. 66-128. The Commission therefore finds that KCPL is entitled to a return of (through depreciation on) its investment in the 314 megawatts of Wolf Creek found to be excess in paragraph 10 above.

VI. ECONOMICS OF WOLF CREEK

A. *INTRODUCTION*

1. The Commission has determined above that certain construction costs of Wolf Creek were imprudently and inefficiently incurred and should not be included in rate base and that a further portion of the plant represents physical excess capacity not currently used and required to be used. The remaining issue for determination is the

reasonable value of that portion of Wolf Creek which is reasonably necessary to provide service. This essential question was hotly disputed by the parties. We will not attempt to summarize all the voluminous evidence on this issue but will mention a few of the arguments.

2. Staff witness Rosen presented extensive evidence supporting staff's economic analysis. Dr. Rosen basically argued that an evaluation of physical excess capacity is inadequate in itself to determine whether a new capacity addition imposes unnecessarily high penalties on ratepayers. Staff contends that an economic evaluation is necessary to supplement the engineering evaluation of excess capacity. Dr. Rosen performed such an economic evaluation by comparing the revenue requirements resulting from inclusion of Wolf Creek in rate base with a more optimal alternative in which gas turbines and eventually coal fired generation was added. Dr. Rosen's analysis showed that in 1984 dollars, KG&E ratepayers' face $1.62 billion more in revenue requirements with Wolf Creek than his alternative, while KCPL ratepayers face a cumulative "net loss" of $1.73 billion. Dr. Rosen also concluded that about 85% of these economic penalties occur in the first ten years of Wolf Creek's operation. He further found that the net losses approximately equaled the capital costs, i.e. depreciation and return, of Wolf Creek.

3. Dr. Rosen also performed a retrospective analysis examining the results of cancellation of the plant in 1981. He concluded that, based on information then available, the continuation of the project would have been seen to result in $500 million more in revenue requirements (1984 present value) than cancellation with recovery and return on the sunk construction costs. Approximately one half of the current economic loss is consequently ascribed to the continuation of the project after 1981. Based on these findings, Dr. Rosen recommended that the total economic loss resulting from continuation of the project

after 1981 be accepted by the companies. The remainder, representing basically the sunk costs at the end of 1981, he proposed to split between the ratepayers and the companies.

4. ALERT's witness, Dr. Komanoff, performed a similar analysis applicable to KG&E only. He concluded that based on evidence available in 1979, KG&E should have realized that Wolf Creek would have resulted in a net economic loss to ratepayers of $750 million, and should have cancelled the plant. He recommended that only 7% of the plant be included in rate base.

5. As noted previously, the Johnson County Joint Intervenors contend that for KCPL, Wolf Creek represents entirely physical excess capacity, and further causes operating inefficiencies on the KCPL system. Witness Lanzalotta and Russell testified concerning the need for Wolf Creek capacity, premature retirements of the Hawthorne and Grand Avenue units and minimum load problems caused by the addition of Wolf Creek. Mr. Pflaum proposed a ten-year phase-in plan which would result in rates approximating the long-run incremental costs to the utility.

6. Dr. Sturgeon, on behalf of intervenor Electric Shock Coalition, testified that both KG&E and KCPL have more than adequate base load capacity. Even if there were a supply short fall, Dr. Sturgeon argued that the proper way of meeting demand is to add peaking plants or by off-system power. If Wolf Creek were less expensive than the baseload plants being displaced, it would qualify for rate base treatment, but such a showing is not likely in Dr. Sturgeon's view. He therefore recommended no inclusion of Wolf Creek in rate base.

7. Witnesses testified on behalf of the Hospital and Industrial Intervenors that Wolf Creek represents substantial excess capacity at an extremely high cost. They recommended that shareholders should bear a portion of

the costs with the remainder to be phased-in over a seven year period.

8. Applicant contends that the economic evaluation proposals of staff witness Rosen and ALERT witness Komanoff should not be adopted for several reasons. First, it argues that the Commission has traditionally valued rate base additions at original historic cost and that deviation from that practice after the fact is inequitable and requires advance notice. Furthermore, the company suggests that adoption of a fair value approach by the Commission would have to be applied to all facilities of a utility and not just a new facility. Applicant contends that the analysis performed by Dr. Rosen was too speculative, required thousands of assumptions and was an exercise in hindsight using a "perfection standard".

B. *DISCUSSION*

1. The Commission has concluded that an economic valuation of the Wolf Creek facility is a desirable approach in this case. As more fully discussed below, we believe that the reasonable value of the portion of that facility which is to earn a return is something less than its cost of construction. This approach is not only necessary to ensure reasonable rates, but also is required by the statutory provisions enacted by the 1984 Legislature in House Bill 2927.

2. The Commission is persuaded by the arguments of several parties that Wolf Creek represents not only physical excess capacity in that much of the plant's capacity is not currently needed, but also economic excess in that the capacity that is required is too expensive and uneconomical. As Dr. Rosen testified:

> The broader economic issue of excess physical capacity involves a determination of whether an excess of *certain types* of generating capacity exists (e.g., too much base load relative to cycling and

> peaking). Such a circumstance would result in costs of supplying power that are unreasonably high relative to a system with an economically optimal mix of types of generating capacity. Thus, excess capacity of one type of capacity could exist, even if in the aggregate there is no excess capacity with respect to system reserve requirements for adequate reliability. Additionally, poor economics for new generating units can arise from other factors, including excessively high capital costs and/or the emergence of economically advantageous resource alternatives. The net result of any or some combination of the above factors can be to render a new capacity addition, which may have *initially* been justified, uneconomical under current and expected conditions. (Rosen, TR. Vol. XXIII, p. 6587-6788).

The Commission believes that the type of long term life-cycle economic analysis performed by Dr. Rosen is very beneficial. Indeed, even Applicant appears to concede that this type of analysis is a useful tool for generation planning purposes. Obviously, the overall long-term benefits and costs of a major construction project are essential considerations for not only utility companies but also regulatory commissions. We conclude, however, that we cannot rely on Dr. Rosen's type of analysis to determine the precise valuation of Wolf Creek in this case.

3. As vigorously stated by applicant, the Rosen analysis requires projections into the future of many factors affecting the relative economics of various alternatives. For instance, capacity factors, variable O&M costs, capital additions, replacement power costs, and decommissioning costs were all subjects of extensive debate during the testimony of numerous witnesses. The Commission does believe that, overall, Dr. Rosen's assumptions for these various inputs into the analysis were more reasonable and realistic than applicants' witnesses. If nothing else, his figures had the virtue of consistency whereas the

company witnesses seemed to have made no effort to coordinate their various assumptions, perhaps the most egregious example being the projected cost of capital additions necessary for Wolf Creek. The company witnesses presented testimony predicting such costs which ranged from $10 million to $81 million annually. Although we therefore believe that Dr. Rosen's conclusions are good indications of the overall economics of Wolf Creek, we are reluctant to base a precise valuation of the plant on those results. We have concluded instead that a more near term approach requiring fewer projections should be used, as set forth below.

4. The Commission is not persuaded, moreover, by the applicant's argument that a "fair value" valuation of Wolf Creek is inequitable. First, and perhaps most important, the Kansas legislature has appeared to require examination of the economics of a rate base addition. Under the provisions of K.S.A. 1984 Supp. 66-128g(a) the Commission must consider a number of factors in determining prudence and the reasonable value of electric generating property. Those factors include:

(1) A comparison of existing rates of the utility with rates that would result if the entire cost of the facility were included in the rate base for that utility;

(2) a comparison of the rates of any other utility in the state which has no ownership interest in the facility under consideration with the rates that would result if the entire cost of the facility were included in the rate base;

(5) the ability of the owners of the facility under consideration to sell on the competitive wholesale or other market electrical power generated by such facility if the rates for such power were determined by inclusion of the entire cost of the facility in the rate base;

(8) inappropriate or poor management decisions in construction or operation of the facility being considered;

(9) whether inclusion of all or any part of the cost of construction of the facility under consideration, and the resulting rates of the utility therefrom, would have an adverse economic impact upon the people of Kansas;

(10) whether the utility acted in the general public interest in management decisions in the acquisition, construction or operation of the facility;

(11) whether the utility accepted risks in the construction of the facility which were inappropriate to the general public interest of Kansas;

(12) any other fact, factor or relationship which may indicate prudence or lack thereof as that term is commonly used.

This statutory mandate compels consideration of the economics of a plant in determining the reasonable value of a rate base addition and also provides notice to the utilities of the general standards to be used. Further, as discussed more subsequently, we do not believe that use of an economic valuation approach is required for all utility plants as suggested by applicant.

5. In considering the appropriate valuation for Wolf Creek, the Commission believes that the appropriate factors may be grouped into several salient sets of facts: The applicant's decisions to initiate and continue construction of a nuclear generating facility; the economic costs to ratepayers and the company of the resulting rates; and the risks assumed by the company and shareholders.

Decisions to Build and Continue

1. Applicant KG&E, as noted above, based its decision to undertake construction of a nuclear generating facility

on the perceived need to achieve fuel diversity. KG&E, reliant on gas-fired generation in the late 1960's, began examining coal and nuclear generation in its planning in view of apparent impending shortages of natural gas for use in generation facilities. The 1978 Federal Fuel Use Act confirmed the natural gas shortage by restricting use after 1989 to peaking units (those operating less than 1,700 hours per year.) KG&E contends that even though the Fuel Use Act was amended in 1981 to remove restrictions on existing generation plants, it still is obligated to reduce its dependence on natural gas by 50%. Further, KG&E argues that although use of coal is now encouraged by national energy policy, concerns about "acid rain", increased coal transportation costs due to railroad deregulation and the possibility of a coal mine strike pose risks to heavy reliance on coal. Applicant KCPL contends that it also based its decision to build a nuclear facility on the perceived need to achieve fuel diversity. Heavily reliant on coal generation, the company was concerned about possible escalating costs for coal, supply disruptions and environmental difficulties. The company also was aware of the increasing scarcity of oil and natural gas.

2. Staff witness Rosen did not dispute the prudence of the companies' initial decision to build a nuclear plant. He, however, contended that the companies had an obligation, in view of the magnitude of the Wolf Creek project and the economic risk involved, to engage in regular reviews to determine if continuation was a prudent policy. He concluded that the companies' planning exercises were too infrequent and deficient in both design and execution.

3. KG&E witness Roen testified that between 1968 and the date of the filing of KG&E's rate case in these dockets, no outside consultants prepared for KG&E an independent economic life cycle coal versus nuclear cost analysis. (Roen, TR. Vol. VI, p. 1646).

4. An analysis was performed for KG&E by Ebasco Services, Inc., in February, 1971, favoring participation

in construction of two large nuclear units (1,100 MW each) to come on-line in 1978 and 1980. (Rosen, TR. Vol. XXIII, p. 6568).

5. KG&E witness Roen testified that KG&E staff prepared internal coal versus nuclear cost comparisons in 1973, 1975, 1976, 1978, 1979 and 1980. (Roen, TR. Vol. VI, p. 1646). (Exhibits G-Staff-22 through 27). Mr. Roen indicated that KG&E's 1973 study (Exhibit G-Staff-22) was "probably not" state-of-the-art but characterized the 1975 studies (Exhibits G-Staff-23 and 24) as a "good piece of work". (Roen, TR. Vol. VI, p. 1686). KG&E's 1976 economic cost-benefit study of Wolf Creek compared to alternatives consisted of a one page levelized bus bar energy bar chart for a 10 year period of analysis (Roen, TR. Vol. VI, p. 1690, Exhibit G-Staff-25) which, by definition, was not a life cycle economic cost analysis for either the nuclear or coal facilities analyzed. (Roen, TR. Vol. VI, p. 1691). Among other weaknesses, the 1976 analysis assumed it would cost as much to operate and maintain a coal plant as it did to operate and maintain a nuclear plant (Roen, TR. Vol. VI, p. 1694), assumed the capacity factor for a nuclear plant would exceed the capacity factor for a coal plant (Roen, TR. Vol. VI, p. 1698), ignored capital additions and decommissioning expense for the nuclear facility (Roen, TR. Vol. VI, p. 1697, 1703), and did not address the need for capacity. (Roen, TR. Vol. VI, p. 1705). The scope of KG&E's 1978, 1979 and 1980 "economic" cost benefit analyses of the coal-versus-nuclear options (Exhibits G-Staff-26, 27 and 28) and most of the assumptions found therein are the same or similar to the company's 1976 analysis described above. (Exhibit G-Staff-24). (Roen, TR. Vol. VI, p. 1705 through TR. Vol. VII, p. 1765). During the cross-examination testimony of KG&E witness Lucas, the witness indictated that analyses of Wolf Creek economics were prepared by KG&E employing a longer than ten year planning horizon, but that documentation of such analyses were unavailable:

> As I indicated earlier, this is one—that was one of several things that we looked at, and it may have been on the back of an envelope, but it was very definitely done; and in those days, you didn't keep all of the envelopes that you worked on. (Lucas, TR. Vol. XII, p. 3176).

It is interesting to note that KG&E's 1980 ten-year levelized bus bar energy cost comparison found a coal facility to be more economical than a nuclear facility (Roen, TR. Vol. VII, p. 1733), and that thereafter KG&E discontinued preparation of what had become an annual one-page analysis.

6. In May of 1980, Ebasco Services, Inc. submitted to KG&E a review and critique of the KG&E nuclear-versus-coal studies. At that time, the construction of the Wolf Creek generating station was well underway. The 1980 Ebasco study endorsed the earlier KG&E findings favoring the economics of the nuclear project. In terms of the initial decision, the report stated:

> KG&E's 1973 decision to proceed with a nuclear project was reasonable from an economic viewpoint as indicated in KGE-1, *Generator Addition Study (Early Eighties Coal vs. Nuclear)*, 1973.

With respect to the subsequent analyses, the 1980 report stated:

> . . . it is Ebasco's conclusion that a complete and realistic comparison made after 1973 of alternatives to the Wolf Creek Generating Station Unit 1 will indicate a significant economic advantage in favor of WCGS 1.

(Rosen, TR. Vol. XXIII, p. 6568-6569).

7. A 1981 study was completed for the entire MOKAN power pool by Gilbert/Commonwealth, Inc. While there are certain cost comparisons of various planning scenarios, the study did not analyze the economics of the

then current generation plans of the member utilities. The Gilbert/Commonwealth analysis was concerned with longer range generation planning strategies and assumed the projected completion dates for plants already planned. (Rosen, TR. Vol. XXIII, p. 6570).

8. According to Dr. Rosen, KCPL appears to have been highly reliant on the analyses performed by KG&E concerning the relative economics of nuclear power units and of Wolf Creek specifically. (Rosen, TR. Vol. XXIII, pp. 6574-6575). Mr. McPhee referenced a number of economic comparison studies in his testimony which purported to demonstrate the economic superiority of Wolf Creek over coal-fired or other types of generation. Mr. McPhee cited a 1971 study entitled "Generation Expansion Study After LaCygne 1." (McPhee, TR. Vol. XIV, p. 3838). The study covered only a 10 year time period from 1975-1985 (McPhee, TR. Vol. XIV, p. 3980) and recommended a plan which included 550 MW of combustion turbine power, 100 MW of purchased power, and 300 MW of nuclear power. (McPhee, TR. Vol. XIV, p. 3982). The 1971 report omitted information concerning the assumptions used to calculate decommissioning costs, nuclear spent fuel handling, storage, transportation, and disposal costs, and capital additions. The study failed to address the need for capacity. (McPhee, TR. Vol. XIV, p. 3993). KCPL did not follow the generation plan recommended by the study (McPhee, TR. Vol. XIV, pp. 3982-86). The study incorporated an analysis of Wolf Creek over only the first five to six years of its operation. (McPhee, TR. Vol. XIV, p. 3986). The 1971 report did not compare the relative economic costs of a single nuclear unit to a single coal unit with all other generation planning factors remaining equal. (McPhee, TR. Vol. XIV, p. 3986).

9. Mr. McPhee's prefiled testimony (McPhee, TR. Vol. XIV, p. 3839) made reference to a KCPL nuclear-versus-coal study prepared in 1974. Unfortunately, this

study also suffers from a limited time frame of analysis (1982-1992) and a dearth of information on underlying assumptions. Mr. McPhee admitted, on cross-examination, that at any nuclear capacity factor less than 70 percent, a coal plant was shown to be economically superior to a nuclear plant. (McPhee, TR. Vol. XIV, p. 3995).

10. Exhibit G-Staff-56 is a KCPL generation expansion study dated April 1975. The study covered only the first 15 years of the expected life of Wolf Creek. (McPhee, TR. Vol. XIV, pp. 4017-18). The study did not compare the relative economic costs of a single nuclear unit to a single coal unit with all other generation planning factors remaining equal. (McPhee, TR. Vol. XIV, p. 4018). The study concluded the most desirable planning option was one which provided for Wolf Creek nuclear power in 1982, reduction of the current capital budget requirements by deferring Iatan from 1980 to 1985 and installation of gas turbines. (McPhee, TR. Vol. XIV, p. 4020). This, once again, was a recommendation which KCPL chose not to adopt. (McPhee, TR. Vol. XIV, 4021). In fact, Mr. McPhee testified during cross-examination that the actual generation plan KCPL chose was the next to highest cost option studied. (McPhee, TR. Vol. XIV, p. 4022).

11. Exhibit G-Staff-201 is a KCPL levelized bus bar energy cost comparison of the Wolf Creek and Iatan facilities prepared in May 1980 for the study period 1983 through 2012. (Evans, TR. Vol. XXXVIII, p. 11296). Units of different sizes were being compared (Evans, TR. Vol. XXXVIII, p. 11297). Operating and maintenance costs were assumed to be higher for a coal plant than for a nuclear plant. (Evans, TR. Vol. XXVIII, p. 11297). The capacity factor of the nuclear plant was assumed to equal the capacity factor of the coal plant. (Evans, TR. Vol. XXVIII, p. 11297). Capital additions for the nuclear and coal facilities were not analyzed. (Evans, TR. Vol. XXXVIII, p. 11300). Decommissioning

expense and nuclear spent fuel handling, storage, transportation and disposal cost assumptions were not stated. (Evans, TR. Vol. XXXVIII, pp. 11300-11301). The analysis did not attempt to determine the most economic size of unit for the KCPL system given the need for capacity at the time. (Evans, TR. Vol. XXXVIII, p. 11301). The conclusion of the analysis that the levelized bus bar energy cost of Iatan would be greater than Wolf Creek resulted "principally because of the shorter book life." (Evans, TR. Vol. XXXVIII, p. 11302).

12. By 1976, KEPCo had begun an investigation of various power supply options with the objective of allowing the cooperative to become an owner of generating facilities and a transmitter of electrical power. In addition to investigating participation in such coal-fired plants as the Jeffrey Energy Center and Iatan, KEPCo engaged a consultant to conduct a feasibility study of KEPCo's participation in Wolf Creek. A preliminary feasibility study completed in early 1977 indicated the desirability of KEPCo becoming involved in the construction of Wolf Creek, suggesting a 17 percent ownership share of the plant. However, the report did not include a comparison of alternative power supply scenarios. Rather, it compared the costs of electricity to the cooperatives over time (including Wolf Creek power availability) with and without KEPCo acting on their behalf as a direct participant in the Wolf Creek project. Another weakness in the analysis was that the demand projections employed were out-of-date because of reliance on a 1973 Power Requirements Study. (Rosen, TR. Vol. XXIII, p. 6577).

13. KEPCo witness Mulholland agreed that Schedule 2, Section 2, Volume 1, of the March 1977 report (Exhibit C-Staff-22) concluded that cooperatives in the KG&E service area would sustain an $8,000,000 loss by associating with KEPCo if KEPCo was a co-owner in Wolf Creek. (Mulholland, TR. Vol. C-3, p. 789). He further

conceded that 43 of the total 67 megawatts of Wolf Creek power available to KEPCo would be used in the KG&E service area and that the report indicated that the KG&E area would be the worst area to use Wolf Creek power. (Mulholland, TR. Vol. C-3, p. 789). Mr. Mulholland admitted that the report showed that substantial economic losses would result from use of the Wolf Creek power in the KG&E service area. (Mulholland, TR. Vol. C-3, p. 790). Mr. Mulholland testified that the 1977 study assumed that KG&E, KPL, and CTU would all incur and pass on to KEPCo increased costs from the acquisition of substantial additional generating facilities. For planning purposes, KG&E was deemed to acquire *four* nuclear power plants and an additional combustion turbine, as well as its interest in four Jeffrey units and LaCygne No. 2 by 1994. (Mulholland, TR. Vol. C-3, p. 792). Kansas Power & Light was scheduled to acquire an interest in four Jeffrey units, two nuclear units, (one in 1988 at 700 MW and one in 1992 at 900 MW) and two additional combustion turbines by 1995. (Mulholland, TR. Vol. C-3, p. 793). CTU was scheduled to acquire an interest in four Jeffrey units, an interest in four nuclear units, an interest in three combustion turbines by 1991, and an interest in a coal plant by 1993. (Mulholland, TR. Vol. C-3, p. 794). That the additional capital costs and operating and maintenance costs from all of these new generating facilities would raise the power production costs of those utilities and result in higher wholesale prices for power they sell is obvious.

14. At the time the KEPCo studies were prepared, KG&E, according to other testimony filed in this proceeding, was aware that it would not need all of the power from Wolf Creek to meet demand. It had filed reports with MOKAN showing a capacity balance above and beyond peak plus a 15 percent reserve margin of 377 megawatts upon commercial operation of Wolf Creek. However, Mr. Mulholland testified that the data used by

KEPCo consultants would not have reflected the most recent information, because:

> They [KG&E or MOKAN] were not cooperative in giving us information. We had to get it from every source, clandestine or otherwise, that we could. (TR. Vol. C-3, p. 799).

He further testified concerning the data that KEPCo consultants used:

> It was probably based on 1975 or no later than 1976 MOKAN pool load and capacity projections. We took that data because it was the best information that we had available about KG&E. (TR. Vol. C-3, p. 799).

15. In March 1979, KEPCo entered into a preliminary agreement for 17 percent ownership of the Wolf Creek Generating Station. Another feasibility study of Wolf Creek prepared by KEPCo consultants became available at that time with a similar analytic approach. Again, the issue addressed was whether costs would be higher with or without KEPCo ownership in Wolf Creek combined with the purchase of 90 MW of Southwestern Power Administration (SWPA) hydroelectric power. Economic impacts were provided assuming uniform rates for all co-op members and assuming rates which varied with the member cooperatives. (Rosen, TR. Vol. XXIII, p. 6578). In reviewing the 1979 study (Exhibit C-Staff-24), Mr. Mulholland conceded that similar assumptions were used concerning the addition of generating facilities to the KG&E system, the KPL system, and the CTU system. (Mulholland, TR. Vol. C-3, pp. 821-825). For instance, the 1979 consultant study assumed a KG&E capacity plan calling for a 136 MW interest in each of Jeffrey Units 1 through 4, a 477 MW interest in Wolf Creek, a 477 MW interest in a 1990 nuclear unit, a 110 MW interest in each of four coal units in 1987, 1989, 1993, and 1995 and a 100 MW interest in a combustion

turbine in 1994. (Mulholland, TR. Vol. C-3, p. 822-823). The 1980 study (Exhibit C-Staff-25) also assumed unrealistic capacity additions for the KG&E system (Mulholland, TR. Vol. C-3, pp. 828-829), calling for a 136 MW interest in each of the Jeffrey Units 1 through 4, a 477 MW interest in Wolf Creek, a 477 MW interest in a 1990 nuclear unit, an 85 MW interest in each of 4 coal units in 1987, 1989, 1993 and 1995, and a 75 MW interest in a combustion turbine in 1994.

16. Volume III, Section C, of the March 1977 KEPCo consultant study (Exhibit C-Staff-23) used extremely questionable assumptions regarding the capacity factors to be expected from generating facilities of investor-owned utilities thereby biasing the result in favor of Wolf Creek ownership. Mr. Mulholland testified that the capacity factor for LaCygne No. 1 was assumed to be 65 percent in 1984 and inexplicably dropped to 25 percent by 1994. For LaCygne No. 2 the capacity factor for 1984 was 9.5 percent, in 1987 it was to 2 to 3 percent and in 1990 it was 0 percent. (Mulholland, TR. Vol. C-3, pp. 801-830). Similar reductions appear in the capacity factors for the Jeffrey units. Mr. Mulholland testified that the capacity factor shown for Jeffrey 1 in 1984 was 60 percent and for 1994 was 13 percent; for Jeffrey 2 in 1984 it was 45 percent and for 1994 it was 10.5 percent; for Jeffrey 3 in 1984 it was 31 percent and for 1994 it was 5 percent. But for Wolf Creek, Mr. Mulholland conceded that the study assumed a capacity factor of 75 percent in 1984 and 80 percent in 1994. Mr. Mulholland contended that the adjustments in capacity factors reflected the real world dispatch of the units that would occur in light of excess capacity, but he did indicate that a lower capacity factor for Wolf Creek would increase the costs of the plant for both KG&E and KEPCo. (Mulholland, TR. Vol. C-3, pp. 803-808). Mr. Mulholland admitted that when production of major coal units is reduced to the extent assumed by

KEPCo consultants there appears to be excess capacity and that he didn't remember that the capacity factors used in the studies were so low. He also testified that bringing a new base load plant on line and shutting down all the other base load plants represents a sizable economic loss to the ratepayer. (Mulholland, TR. Vol. C-3, pp. 808-811).

17. The studies performed by KEPCo consultants in 1979 and 1980, Exhibits C-Staff-24 and 25, respectively, used assumptions for capacity factors that reflect significant reductions (although not as drastic as appeared in the 1977 study) for the base load coal units of each utility. The capacity factors for Wolf Creek in those years were shown to average from 73.5 to 74.8 percent. (Mulholland, TR. Vol. C-3, pp. 825-826; 838-840). Mr. Mulholland contended that even though an economic loss accrues to the ratepayer from having major base load coal facilities run at a small percentage of their available capacity, the best thing to do at that point is to minimize generating costs by backing down all other baseload plants. (Mulholland, TR. Vol. C-3, pp. 840-841). Mr. Mulholland testified that the economic loss associated with reduction of existing base load plant capacity factors should be taken into account when deciding whether to construct a baseload nuclear unit. (TR. Vol. C-3, p. 842).

18. At the request of the Rural Electrification Administration and to further evaluate the feasibility of KEPCo's participation in Wolf Creek, Mr. Mulholland specified Wolf Creek cost-related criteria in an August 24, 1981, memo which were to be met by KEPCo (Exhibit C-Staff-29). Those criteria were:

1) The KEPCo program should be in a loss situation for more than four years,

2) The maximum losses that should be sustained in any one year should not exceed one-half cent per kilowatt hour,

3) The losses during the early years of KEPCo's development should not average more than a third of a cent per kilowatt hour. (TR. Vol. C-3, p. 870).

Notwithstanding those criteria, he then indicated that (1) KEPCo currently was projecting losses for six years; (2) the maximum loss would be 2.5 cents per kwh (which Mr. Mulholland later corrected to .95 cents per kwh at page 924 of the transcript); and (3) the average losses during the early years would be 1.4 cents per kwh. (TR. Vol. C-3, p. 871-872). During cross-examination concerning several charts attached to Exhibit C-Staff-29, Mr. Mulholland testified that (1) the maximum annual economic loss to KEPCo decreases with a decreasing interest in Wolf Creek (Mulholland, TR. Vol. C-3, p. 879); (2) KEPCo could minimize its loss by owning only 15 MW of Wolf Creek (Mulholland, TR. Vol. C-3, p. 880); (3) that the charts were favorably biased by including savings from the purchase of hydropower (Mulholland, TR. Vol. C-3, p. 888); (4) that if SPA power was not incorporated in the analysis, that Wolf Creek losses would appear even more dramatic (Mulholland, TR. Vol. C-3, p. 891); and (5) that KEPCo could reduce its losses by purchasing less than 5 percent of Wolf Creek (Mulholland, TR. Vol. C-3, p. 893).

19. A series of sensitivity analyses were prepared in May 1980 by KEPCo consultants. One of the variations involved criteria which altered the annual load growth rate from four percent to two percent. (Exhibit C-Staff-34). The result of that single alteration dropped the savings anticipated by KEPCo from use of hydropower and Wolf Creek ownership by $41 million. (Mulholland, TR. Vol. C-3, p. 909). Another of the sensitivities tested was to replace Wolf Creek ownership with participation in Iatan. (Mulholland, TR. Vol. C-3, p. 911). Mr. Mulholland verified that several assumptions of questionable value were used by KEPCo consultants: (1) The opera-

tion and maintenance cost for Iatan, a coal-fired plant, was assumed to be higher than that for Wolf Creek; and (2) the studies compared 13 years of costs of operation for Wolf Creek and 16 years of costs of operation for Iatan. (Mulholland, TR. Vol. C-3, p. 911-913). The results of that study indicated a savings resulting from participation in Iatan of $133 million. (Mulholland, TR. Vol. C-3, p. 914). Another 1980 sensitivity increased the cost of Wolf Creek to $1.8 billion. That analysis resulted in a reduction of savings from Wolf Creek and hydropower to $113 million, which is less than the savings apparent if Iatan was purchased rather than Wolf Creek. (Mulholland, TR. Vol. C-3, p. 915).

20. Based upon the extensive record in the captioned dockets, the Commission finds reason to conclude with Dr. Rosen that each of the owners' Wolf Creek economic cost-benefit planning exercises were too infrequent and deficient in design and execution.

Economic Impact and Rate Comparisons

1. K.S.A. 1984 Supp. 66-128g(a)(9) requires consideration of whether resulting rates of a new facility in rate base "will have an adverse impact upon the people of Kansas." It is clear from the evidence presented that the rates resulting from total inclusion of Wolf Creek in rate base would be unreasonably high. KCPL states that a one time increase of 52 percent could be justified but has proposed a four year phase-in plan with a first year increase of $45.3 million, or 25 percent, with a cumulative increase over the base year rates of 64 percent. KG&E proposes a first year increase of $144.9 before fuel savings, a 39.4 percent increase, with a total increase over a five year phase-in period of 106 percent. Both companies have submitted the phase-in proposals in recognition of the fact that one time increases of 52 percent and 98 percent would be too large a burden on ratepayers. Numerous public witnesses in

the non-technical public hearings not only confirmed the company's opinion that a one time increase was too heavy of a burden but also revealed strong opposition to the phase-in proposals and magnitude of the proposed first year increase.

2. KCPL also presented some comparisons of its rates with Wolf Creek to national averages and the rates of KPL. Mr. Sullivan sponsored Exhibit G-KCPL-52 which contained the relevant information. That exhibit reflects the fact that at least until the 1990's, KCPL rates will be more than the national average and KPL rates. After that period, it is difficult to make any conclusions since Mr. Sullivan's data assumes continued increases in KPL and national average rates while assuming level of declining KCPL rates due to declining rate base and increased sales. These rate comparison charts also confirm the observations of staff witness Rosen and other witnesses that the economic disadvantages caused by Wolf Creek are greatest in the early portions of its service life and that as the plant's high capital costs are depreciated, it becomes a relatively more economic source of energy.

3. Mr. Branca, of KCPL, also testified on KCPL's ability to sell on the competitive wholesale or other market the energy from Wolf Creek. He concluded that Wolf Creek would lower the system's average incremental costs, making KCPL more competitive for interexchange transactions. However, he conceded that his conclusions did not apply to wholesale transactions which are priced on a fully allocated cost basis such as firm power and "capacity type" transactions. (TR. Vol. XII, pp. 3305-06).

4. KCPL also presented the testimony of Dr. Daicoff. His testimony, assessing the economic impact of KCPL's proposed rate increase as minimal, is less than persuasive. Dr. Daicoff's analysis and surveys appear incom-

plete and inconsistent. Dr. Daicoff's study does not specifically consider the economic impact of the 52 percent increase in charges for electric service proposed by KCPL or the short-term impact of KCPL's phase-in proposal. (TR. Vol. XVI, pp. 4710-4712).

5. Dr. Tolley, on behalf of the Johnson County Joint Intervenors, presented an economic analysis of the effect of KCPL's proposed rate increase. Dr. Tolley's work is convincing that KCPL's rate proposals would have some adverse economic impact, although the effect on employment does not appear great. According to Dr. Tolley, KCPL's proposal would result in less sales, increased unemployment, reduced incomes, higher government costs and loss of tax revenues. (TR. Vol. A-6, corrected p. 1284). Existing businesses would encounter higher costs and reduced output and may be forced to relocate. Furthermore, new businesses will be discouraged from locating in KCPL's service area. (TR. Vol. A-6, pp. 1274, 1284).

6. Mr. Russell also testified on behalf of the Johnson County Intervenors concerning KCPL's attempts to sell firm power or participation to five potential buyers. He concludes about the efforts to consumate such transactions that they reflect KCPL's recognition of its excess capacity for the next ten years and reveal the non-competitiveness of KCPL's fully allocated power costs. (TR. Vol. A-7, p. 1656).

7. James Cobler also presented testimony on behalf of the intervenor Attorney General of Kansas concerning the financial impact of the proposed rate increase upon agencies of the State of Kansas, which ultimately fall upon the citizens of Kansas. As noted above, the transcripts from public hearings conducted throughout the KCPL service area are replete with testimony concerning the adverse economic consequences of a substantial increase in charges for electric service. The Commission believes the evidence clearly shows that inclusion of the

entire investment in Wolf Creek in the rate base of KCPL would have some adverse economic impact upon the people of Kansas, whether they be residential, commercial or industrial users.

Risk Assumption and Sharing

1. Before turning to the third set of factors concerning risks accepted by the applicant, we should review the testimony concerning the proper role of regulation in determining rates. Dr. Sturgeon on behalf of the Electric Shock Coalition, testified that:

> . . . one of the goals of public utility regulation is to create the same results within the regulated industry as would occur in a competitive market. In a competitive market, if a firm does not use the efficient alternatives, it must either exit the market or receive a lower than normal return. (TR. Vol. XXVI, p. 1646).

2. Dr. Rosen, in his testimony on risk sharing also discussed ways in which regulation can take the place of competition in the instant context. He stated that "in theory the discipline of the market helps ensure that investment decisions are made judiciously in the competitive market." (TR. Vol. XXXIII, p. 6714). Dr. Rosen also observed that for the regulated electric utility industry there are two principle means of achieving this effect. The first is an on-going process of critical review of utility planning with some state regulatory commissions holding long range planning hearings on a regular basis. The second process involves regulatory actions which provide incentives and disincentives. For example, requiring utilities to bear some of the costs of excess and costly new capacity encourages management to engage in more careful and critical planning.

3. Applicants, through witnesses Phillips and Fitzpatrick, argue that public utilities cannot be judged with

the same standards as might be appropriate for unregulated businesses. (Phillips, TR. Vol. XXVII, pp. 7616-18; Fitzpatrick, TR. Vol. XXVII, pp. 8052-53). Public utilities have an obligation, unlike non-regulated firms, to serve present and future demand and, concurrently, have revenue requirements based on actual costs. Applicant argues that because of the long period of time over which investments are made, there are increased risks for electric utilities for which the regulatory process has traditionally afforded surety.

4. The Commission cannot embrace totally the views that regulation should produce the same results as the competitive market place. As applicants observe, there are significant distinctions between the obligations of regulated and non-regulated firms. However, we agree with Dr. Rosen and other parties witnesses that regulation must provide a mechanism which encourages good management planning. A comparison with the free market model in this light is of some value and is consistent with legislative directions to compare rates resulting from capacity additions with other utilities' rates.

5. We believe, moreover, that the "risk-sharing" approach advocated by Dr. Rosen has considerable merit. This is especially true in this complex case with much conflicting evidence. The Commission finds of particular relevance Dr. Rosen's testimony on evaluation of planning prudence:

> Q. In evaluating the planning process, it is not difficult to distinguish between imprudence and just poor planning?
>
> A. Yes, it is. This is one reason why I believe that there is a need for clear, equitable, and strong risk sharing policies to be established by regulatory commissions to be able to deal with the consequences of poor planning, even if no imprudence is demonstrated. The standard for

imprudence in investments is generally quite restrictive, referring to losses which were sustained due to negligence, wastefulness, or dishonesty. In some cases, utilities periodically did the correct type of study, yet the assumptions or methods used were so unrealistic that the resultant management investment decisions were so unreasonable that they may have bordered on negligent. Another source of potential imprudence would be grossly insufficient study or project review altogether.

Q. How, then, would a regulatory agency use the six criteria that you have elaborated above to decide upon a precise sharing of excess costs?

A. One cannot be completely precise in these matters. Sometimes public utility commissions have decided that, short of any outstanding consideration, a 50/50 sharing between ratepayers and stockholders of the amount under dispute is appropriate, but other proportional splits have been adopted. Sometimes a return *of* an investment is granted (depreciation or amortization), but not a return *on* the investment (it is not included in rate base). I believe it is reasonable to say that significant deviations from a 50/50 sharing formula relative to total expected economic losses should be justified. For instance, stockholders might be required to bear a greater proportion of the burdens if the company planning process that led to the losses was particularly poor, or if company decisions did not seem continually sensitive to the need to keep rates as low as possible.

(Rosen, Tr. Vol. XXIII, pp. 6718-20).

6. With reference to risk sharing, the Legislature has also explicitly instructed the Commission to examine

"whether the utility accepted risks in the construction of the facility which were inappropriate to the general public interest to Kansas." K.S.A. 1984 Supp. 66-128 (a)(11). The Commission believes that the applicants have, in fact, accepted enormous risks in connection with the Wolf Creek project. As observed by Dr. Rosen:

> Constructing a large new facility involves numerous risks. First, capital cost estimates for baseload units have consistently proved to be low. Second, achieving fuel savings sufficient to offset high capital cost requires that baseload units be operated a substantial portion of the year. Finally, if load growth and fuel price projections prove to be inaccurate, a costly baseload facility may not realize the benefits for which it was originally planned.
>
> All of the factors I just mentioned are particularly applicable to nuclear units because of their long construction periods, large unit size, and unexpectedly poor operating performance and high operating costs. (TR. Vol. XXIII, p. 6721).

The estimated costs of the plant have grown from the original 1973 estimate of $525 million to the "Definitive Estimate" of $1.033 billion in December of 1976 to the latest official July 1984 estimate of $2.904 billion or over $2600/KW. The actual final cost will likely be over $3 billion. Since the November 1981 estimate of $1.952 billion, the costs have increased more than $900 per kilowatt. As discussed by several witnesses, during this time of increasing cost estimates for completion, the growth in demand forecasted was also decreasing while the economics of coal fired generation began to look more favorable. The unfavorable picture became, of course, even gloomier when KEPCo reduced its ownership share and attempts to sell participation or energy to other utilities failed. The applicant despite these trends did not appear to seriously consider the possibility of cancellation.

7. Indeed, KG&E management and stockholders positively affirmed the decision to continue the project on two occasions in the face of serious concerns by some stockholders. Exhibit G-Staff-36, the May 21, 1980 Notice of Annual Meeting of Shareholders contained the following shareholder proposal:

> STOCKHOLDER PROPOSAL NO. 1 to be presented at the annual meeting of stockholders of the Kansas Gas and Electric Company, May 21, 1980.
>
> We recommend to the Board of Directors that construction of the Wolf Creek Unit No. 1 nuclear power plant near Burlington, Kansas be stopped.
>
> STATEMENT IN SUPPORT OF THE PROPOSAL:
>
> In our opinion, undue burdens on the stockholders are presented by these financial uncertainties:
>
> a) accidents such as Three Mile Island has experienced,
>
> b) as yet unknown safety requirements that will be imposed by the Nuclear Regulatory Commission,
>
> c) cost overruns and construction occasioned by faulty work may not be allowed as part of the rate base and might have to be borne by stockholders,
>
> d) rising costs of repairs,
>
> e) cost and availability of nuclear fuel, and
>
> f) cost of decommissioning the plant.
>
> We agree with the Company that operating in a socially responsible way is important. Are we socially responsible if we continue constructing a nuclear plant which, in our opinion, will:
>
> a) possibly double the cost per unit of electricity,

b) expose workers during its operation, repair, and decommissioning to above normal radiation with its attendant increased risks of cancer and genetic damage,

c) use larger quantities of water having first priority over community needs even in times of drought,-

d) emit radiation over neighboring farms which can enter plants and animals, become part of the food chain, and increase risks to the health of this and future generations, and

e) create thousands of cubic feet of radioactive waste when we do not know how to transport or store it safely?

Exhibit G-Staff-38, the May 27, 1981 Notice of Annual Meeting, contained a similar shareholder proposal:

> STOCKHOLDER PROPOSAL NO. 3.a to be presented at the annual meeting of stockholders of the Kansas Gas and Electric Company, May 27, 1981.
>
> We recommend to the Board of Directors that construction of the Wolf Creek Unit No. 1 nuclear power plant near Burlington, Kansas be stopped.
>
> 1. The cost of construction continues to mushroom from the projections first given stockholders. The Cresap, McCormack & Paget report, commissioned by the Kansas Corporation Commission, states that safety-related regulatory and licensing requirements will effectively triple the costs (from 1973) in plants loading fuel in 1986.
>
> If the sale of 17% of Wolf Creek to Kansas Electric Power Cooperatives is not successful, it is unlikely that, KG&E will be able to generate its share of the 1.1 billion dol-

lars needed to complete Wolf Creek. If KEPCo does buy and is only liable for costs up to 1.5 billion instead of the projected 1.7 billion dollars, this will put an unfair burden on other stockholders.

2. The Investor Responsibility Research Center, Inc. has stated that the ability of other Kansas utilities to contract for cheap Wyoming coal may place power from Wolf Creek at a competitive disadvantage once the plant is completed, if construction, operation, or fuel costs, rise considerably. In our opinion, this will, in all probability, be the case with Wolf Creek.

3. The need for Wolf Creek can be obviated, according to many authorities, by promoting all possible conservation efforts.

STATEMENT IN SUPPORT OF THE PROPOSAL:

1. It is imperative that Kansas citizens be protected from any build-up of radioactive fission products in the environment where they can become concentrated in the food chain. The cost of safely containing Wolf Creek's low level radioactive waste and approximately 30 metric tons per year of spent fuel (high level radioactivity) on the site or of transporting it in safe and guarded shipments to Federal repositories in other parts of the country, will greatly increase the cost of the fuel cycle.

2. Uranium ore supplies are limited and uranium 235 fuel will rise in cost as easily accessible supplies near depletion.

3. Although $400,000,000.00 has been calculated into Wolf Creek's total construction cost for decommissioning, Metropolitan Edison has esti-

mated that it will cost $1,000,000,000.00 (1 billion dollars) and five years to decommission their Three Mile Island reactor.

4. According to the Energy Project at the Harvard Business School (1979), the United States with a serious commitment to conservation, might well consume 30 to 40% less energy than it does now. This was born out by a program in Los Angeles, initiated after the Arab Oil embargo went into effect. Total electrical usage dropped by 17% in one year.

8. In response to both shareholders proposals the company's Board of Directors stated that the decision to build Wolf Creek was sound, the sunk investment was large and would be wasted, and without Wolf Creek, the company would be unable to meet demand for electricity by the late 1980s. Mr. Cadman, under cross-examination by staff, conceded that the decision to continue construction was based more on concerns about fuel availability than on the need for capacity. Of the voting shares, 82.7 percent cast votes against the 1980 shareholder proposal and 75.8 percent against the 1981 proposal to halt construction.

9. The Commission believes that it is reasonable to assume that the facts and circumstances giving rise to the concerns expressed by the KG&E shareholders were available and known or should have been known to KCPL and its shareholders also. Despite these changing conditions, KCPL continued construction of WCGS through its partner, KG&E.

C. *FINDINGS AND CONCLUSIONS*

1. After careful consideration of the above facts and the entire record, the Commission concludes that the portion of Wolf Creek which is used and required to be used is an extraordinarily expensive means of providing

base load capacity which could have been provided at a more reasonable cost. The rates resulting from full rate base treatment of Wolf Creek would be unreasonably high for ratepayers to pay and unreasonably high compared to other electric utility rates in Kansas. Imposition of such rates would have a detrimental impact on ratepayers and the general economics of the state. Although the lower fuel and operating costs of a nuclear plant may ultimately result in favorable rates, this would not occur until some time in the future. The decision to continue construction of Wolf Creek, especially after 1981, was not based on adequate or realistic analysis and review and appears to have stemmed from institutional inertia. Certainly by the end of 1981, applicants should have been acutely aware that the capital costs of Wolf Creek were becoming unreasonably high and that the overall economic benefits were subject to serious question. Faced with changing economics of the benefits of Wolf Creek, the applicant and its shareholders continued to assume the risks involved in a project of such magnitude. We believe in light of these facts that simple exclusion of the physical excess capacity of Wolf Creek would still result in an unreasonable valuation of property in rate base.

2. One of our considerations deserves further comment. Even under the best of circumstances, a high priced capital addition to rate base such as a generating facility causes some inequities among various generations of ratepayers. As mentioned previously, the overall benefits to ratepayers of such a facility increase over time as the capital costs decrease through accrued depreciation. Even if these are overall economic savings or benefits over the life of the plant, those benefits may never be felt or realized by the earlier generations who pay for the higher capital costs at the beginning of the plant's life. This intergenerational inequity occurs to some extent relative to each item of investment included

in a utility's rate base, but normally the overall effect is moderated by the mixture of plant in rate base at various stages of economic life. In the instant case, however, Wolf Creek investment would dominant the plant-in-service rate base account of the applicant, so that such inequity would not be effectively offset. Also, in the instant case, of course, are serious questions of whether there would be an overall benefit over the life of Wolf Creek. For both reasons serious intergenerational inequities would result without further adjustments.

3. The Commission has reviewed with interest the examples of other state commissions' actions cited in witnesses' testimony and the parties briefs with regard to excess capacity and risk sharing. We would also note the Kansas case of *Kansas Power & Light Co. v. Kansas Corporation Commission*, 619 P.2d 320, 5 Kan. App 2d 514 (1981). In that case, the Court of Appeals determined that the benefits of capital gains resulting from the sale of an office building should not accrue solely to the shareholders of the company. Although capital gains warrant different considerations than economic losses associated with an excessively expensive generation facility, that case appears to recognize the principle that equitable division of economic consequences between shareholders and ratepayers is appropriate. Other states have taken action above a fixed reserve margin to a limitation of the capital costs of a facility. These excessive costs have been totally excluded or have been shared between ratepayers and shareholders by adjustments to return. We believe that a combination of approaches is warranted in this case. In view of the fact that the decision to construct and build Wolf Creek was not supported by a need for physical capacity, a physical excess capacity adjustment is undeniably appropriate. In addition, the exorbitant capital costs of Wolf Creek must be addressed by some type of adjustment. Although evidence was presented, primarily by Dr. Rosen and Dr.

Komanoff, that at some point the Wolf Creek project should have been cancelled, we cannot conclude with the absolute certainty which we believe is necessary that such conclusion would necessarily have been made. If such were the case, a total exclusion of excessive capital costs from rate base would be warranted. We believe instead that no return should be allowed on that portion of Wolf Creek which is not used and required to be used and represents unreasonably high capital costs. By allowing a return of the costs through depreciation but no return on the costs, we are dividing the economic consequence between ratepayers and shareholders in an equitable manner.

4. We are not basing this decision on a "prudence determination." Although substantial evidence has been presented that the excessive costs of Wolf Creek are the consequence of imprudent decisions and actions of the applicant, we do not make such a finding today. We do believe that KCPL has not performed adequately throughout much of the period during which Wolf Creek has been built, and that more rigorous reviews of likely consequences and alternatives may have avoided the exorbitant costs associated with Wolf Creek. We do find that substantial risks were involved in the Wolf Creek project and a significant portion of the economic consequences should be shared by the company.

5. As noted previously, applicant contends that while the Commission is free to choose among several valuation methodologies, the methodology chosen should be uniformly applied to all of the utility's property. The Commission disagrees. First, we note that the statutory provisions enacted by H.B. 2927, particularly those in K.S.A. 1984 Supp. 66-128g, appear to be directed primarily at new additions to electric generating capacity. The Commission in this proceeding is determining the value of such an addition to applicant's system. It has in the past already determined the reasonable value of other

assets which were determined to be used or required to be used and included them in rate base accordingly. No evidence has been presented in this proceeding that the reasonable value of such other facilities is greater than such historical original costs. Furthermore, the Commission would be most reluctant to determine that when the "economic" value of an asset increases above its historical book value, the asset should be revalued for ratemaking purposes. If, as occurs in the unregulated industries, the utility assumed all risks that the "value" of a facility was less than historical costs, it might be appropriate for the rewards associated with a greater value to accrue to the utility. The approach taken today, however, is a far cry from imposing the excessive costs of Wolf Creek totally on the company. The shareholders will recover almost all the costs of Wolf Creek through depreciation; they will smiply not earn as great a reward through return as they would if the reasonable value of Wolf Creek were equal to its historical value. The other assets already included in rate base at original cost have, of course, already received a return which did not include any risk sharing. With regard to the Wolf Creek plant excluded today, its value may increase with changes in the comparative economics of coal generating facilities. If, for example, coal transportation costs escalate or "acid rain" concerns cause increased costs for coal generation facilities in the future, the figure adopted today could increase. Absent very compelling evidence, however, we cannot envision that value as being greater than the historical costs. Furthermore, the Commission is inclined to believe that that valuation of plant included in rate base should not change over time although that need not be addressed today.

6. With regard to the potential increases in the value of Wolf Creek due to its economic comparison with coal facilities, the Commission would make a few additional observations. We do not, of course, intend by estab-

lishment of this standard to create incentives for utilities to operate their coal plants in a less efficient manner. Any changes in operational characteristics will be subjected to close scrutiny. Indeed, as noted in another portion of this order, we are encouraging the utilities to improve efficiencies of their systems. Some parties have suggested system problems, such as minimum loading constraints, are created or exacerbated by the addition of Wolf Creek and have proposed various remedies. One such possibility is the creation of an ongoing performance standard program with both incentives and disincentives, especially with regard to fuel savings to be passed on to ratepayers through the Energy Cost Adjustment (ECA) clause. The Commission believes that such programs are worth exploring and intends to do so.

7. The Commission's failure to adopt today any of the proposals should not be misconstrued as lack of concern about the alleged problems with the applicant's system configuration and operations. In fact, the Commission is inclined to agree that the applicant's system has not only too much capacity but also too much base load capacity which causes system inefficiencies such as the minimum load constraints discussed by a number of witnesses. Although this has been somewhat considered in our decision today, no additional adjustments have been made. The Commission does not believe that there is sufficient evidence on the quantification of economic inefficiencies or appropriate remedies to take further action at this time. There was also specific testimony on the need to revise the various standards in the current Energy Cost Adjustment (ECA) clause as a result of the operation of the Wolf Creek Generating Station. Those standards relating to line loss limits, thermal efficiency and fuel mix in the ECA clause potentially need adjustment but we do not believe there was sufficient evidence to make determinations at this time. We consequently intend to treat ECA tariffs filed in com-

pliance with this order as temporary and to set the matter for hearing at a later date.

8. In determining the proper valuation for capital costs, the Commission has concluded that the proper value is what a coal-fired plant meeting the applicant's needs would have cost. We believe that capital costs above this benchmark were part of the risks accepted by shareholders. There is a wide range of such costs in the record. We will mention a few.

9. Witness Komanoff's testimony contained a variety of figures for a coal plant including $639/Kw for the estimated completion of JEC 4 in 1983 dollars (TR. Vol. XXXIV, p. 9980); $816/Kw from a 1980 estimate for JEC 4 completion in spring of 1986 (*Ibid*, 10155-10156); and $900-$950/Kw for an expensive coal plant with scrubbers in 1982 direct construction costs (*Ibid*, 10215).

10. Dr. Rosen, in his analysis, assumed the costs of $1,983/Kw for a 265 Mw unit on line in 1989 and $1,770/KW for a second unit in 1993 with a 6 percent rate of inflation. (TR. Vol. XXIII, p. 6663). If brought down to 1985 present value, these costs would be around $1,570/Kw and $1,110/Kw respectively. A larger coal plant with better economies of scale would, of course, be expected to result in lower costs.

11. Mr. Roen testified in regard to Exhibit G-Staff-29, a Bus Bar study done in 1981 by Mr. Lucas of KGE. A referenced 680 megawatt coal unit for completion in 1984 was assumed to cost $800 to $1,200 per megwatt pursuant to a study performed by Gilbert Commonwealth on behalf of MOKAN in 1980 and 1981. (TR. Vol. VII, p. 1772-1773). One of the reasons for the wide range was allowance for environmental control devices. The other annual studies performed by KGE contained in Exhibits G-Staff 24-28 all assumed a lower cost for a coal plant, of course, ranging from $570/Kw in 1975 to $850/Kw in the 1980 study.

12. Mr. Doyle, in his testimony, referred to a Black & Veatch study performed for KCPL. That report indicated a 650-700 megawatt coal plant for completion in 1985 to comply with environmental laws would cost $1,120 per kilowatt. (TR. Vol. XIII, p. 3585-3587).

13. Mr. Ferraro, sponsoring portions of the CMP report, Exhibit G-KGE-21, noted the United Engineers and Constructors (UEOC) studies reflected on Exhibit IV-5 of the CMP report. A 1975 study estimated the cost of a 1,000 MW coal-fired plant commencing operation in January 1985 as $750/Kw.

14. In contrast to the above historical estimates, there is the actual experience of coal fired plants recently operational in Kansas. The Holcomb plant, owned by Sunflower Electric Cooperative cost approximately $1500 per kilowatt and is considered a relatively expensive plant. The third unit of Jeffrey Energy Center, considered an unusually successful construction project by at least one witness (Komanoff, TR. Vol. XXXIV, 10158) cost less than $600/Kw.

15. The Commission has concluded that a reasonable value for Wolf Creek capacity should reflect both the cost estimates for a coal plant which were prevalent during the construction of Wolf Creek and the actual experience of recent facilities. There is, of course, no precise manner for determining the proper value. We believe, however, that $1150 to $1250/Kw represents a reasonable range for an appropriate value. This is substantially more than most of the estimates used in the owners' planning studies and the JEC Unit 3 cost which did not require pollution control devices. It is of course less than the Holcomb per kilowatt cost, however, Holcomb did not benefit from the economies a larger unit would produce.

16. It is of some worth to compare this $1150-$1250/Kw range with the increases in costs which have oc-

curred for Wolf Creek construction beginning with the November 1981 estimate which should have given the owners serious concerns about the continued economics of Wolf Creek. From the proper estimate of $1.687 billion the costs have increased over $1.3 billion or over $1180/Kw. Also of some interest for comparison purposes is the figure of $1490 per Kw which owners' witness Fairchild stated was the incremental cost of increasing the size of Wolf Creek from 800 Mw to 1150 Mw, based on a total plant cost of $2.9 billion (TR. Vol. XXXII, p. 9632-33).

17. In evaluating the appropriate capital cost to be imputed to Wolf Creek, we also need to consider the lower operating costs of Wolf Creek in comparison to coal plants. There are, of course, a variety of plant comparisons which could be made. We have examined the generation costs of Wolf Creek, including the decommissioning costs we have adopted today, as compared to various coal facilities on the KGE and KCPL systems. Schedules RAR 4.1 and 4.3 of Exhibit G-Staff-127 set out the generation costs associated with the coal plants which provided electricity in 1984 ofr KG&E and KCPL. These costs range from 1.5¢Kwh for the Iatan unit to 3.1¢/Kwh for the Hawthorn units. The LaCygne units, jointly owned by the companies, showed costs in 1984 of 2.3¢/Kwh for Unit 1 and 1.7¢/Kwh for Unit 2. The respective average coal costs for the companies are 1.90¢/Kwh for KGE and 2.00¢/Kwh for KCPL.

18. These costs may be used to determine the savings which might be expected from Wolf Creek over a coal facility by taking the difference per Kwh with Wolf Creek's estimated generation cost, approximately 1.58¢/Kwh. (See KGE Application, Section 8, Schedule 4). Assuming the capacity factor anticipated by the operating partner for Wolf Creek of 61 percent (Lucas, TR. Vol. XII, p. 3105, 3126) a considerable range of savings result. For example, LaCygne 1 generating costs of 2.3¢/

Kwh compared to Wolf Creek results in an annual generation savings of $43,600,000. However, the LaCygne 2 comparison would show a savings of only slightly more than $7,200,000. When these generating cost savings are translated into capital costs, the range of approximately $174/Kw to $29/KW results. Use of the average coal plant costs for the two companies results in a savings in a range from $19,340,000 to $25,400,000. The respective company average coal plant cost figure comparisons result in a a range of $77/Kw to $102/Kw capital cost figure. We believe this range is most appropriate for our purposes here. We recognized that using the average coal generating costs does not correspond precisely with the fact that we have allowed a capital cost for current vintage coal plants which have lower generation costs. Such a more precise analysis would, of course, show less savings for Wolf Creek. However, for purposes of this case, we believe that a rough reflection of the generation costs being displaced by Wolf Creek is appropriate. A figure toward the lower end of the range would, however, be appropriate to compensate for the inclusion of older vintage plant generation figures. We also note that the generation costs for Wolf Creek do not include any reflection of future capital additions. The appropriate estimate for such costs was hotly disputed, but inclusion of any costs would, of course, reduce the relative value of the plant.

19. The combination of the $1150-$1250/Kw range for reasonable costs of coal plants combined with the $77Kw to $102/Kw range for reflection of generation cost savings results in a total range of $1227 to $1352/Kw as a reasonable value for a comparable coal plant. We believe that the midpoint of this range of $1,290/Kw is reasonable in this case as a value for Wolf Creek for which a return should be allowed.

20. The Commission recognizes that this valuation of Wolf Creek has necessarily been judgmental. As noted in

applicants' briefs, however, "the determination of whether a plant is 'required to be used', 'useful' or 'reasonably necessary' is not susceptible to a simple cookbook approach." (KCPL Brief, p. 19; KGE Brief p. C-9). Applicants have urged that reliance solely on comparative economics or physical reserve margin would improperly narrow the application of the "used and required to be used" standard, and have urged primary consideration of management prudence. The Commission, as set forth above, has considered all three factors and believes that this decision reflects the appropriate valuation of that portion of Wolf Creek which is used and required to be used.

21. K.S.A. 1984 Supp. 66-128e provides in part that:

> In the event the commission finds that a portion of the costs were attributable either to investment in excess capacity which were incurred due to lack of prudence in facility planning or were incurred due to lack of prudence in plant acquisition, construction or operation, the commission shall exclude that portion of the carrying of finance charges incurred after the date of its findings, and no part of the carrying or finance costs excluded shall ever be or become part of the reasonable value of public utility property so used and required to be used.

22. As stated above, the Commission is not basing its decision today on a finding of imprudence except for the exclusion regarding unreasonable increases in construction costs. The Commission, therefore, is not required to exclude permanently the "carrying and finance charges" associated with physical and economic excess capacity adjustments we make today, although we have the discretion to do so under K.S.A. 1984 Supp. 66-128b. That statute provides as follows:

> The commission may require a public utility to defer inclusion of all or any portion of the reasonable value

of property determined not currently used and required to be used and may require the phase-in of such value over any period of time and in such increments as it determines to be appropriate. If the commission requires a public utility to defer the inclusion of any portion of such reasonable value and orders a phase-in of such value, it may exclude any or all of the carrying or finance costs incurred after the date of its determination and throughout the period of any deferral or phase-in as so ordered.

23. Under the decisions we make today, all of Wolf Creek, except for that portion resulting from construction cost overruns and schedule delays, will be subject to recovery by depreciation expense. The physical and economic excess capacity exclusions are, however, ineligible for a return on investment. Consequently, those amounts are today not fully included in rate base. Although those exclusions may well someday be fully in rate base, we are unable to project when that will occur. Therefore, we must decide on a reasonable treatment of the carrying costs for the excluded amounts.

24. We find that some carrying costs associated with the debt and preferred stock costs of capital should be accrued. Such carrying costs, however, should only be those associated with the portion of Wolf Creek excluded on a physical excess capacity basis valued at the same economic value as the portion included in rate base. This amount should be capitalized by applicant at the overall weighted cost of debt and preferred stock and recorded on a net-of-tax basis as a debit to FERC Account 186, Miscellaneous Deferred Debits and a credit to Account 421, Other Income and Deductions. Amortization of this amount for ratemaking purposes will commence with the Commission's final order determining permanent rates associated with Wolf Creek. The amortization period shall be over the then remaining life of the Wolf

Creek plant on a straight line basis. No interest compounding shall be allowed on the balance in the deferral account. Changes made by the Commission in the future on the amount of Wolf Creek which is excluded will, of course, result in a prospective modification of the deferral calculations and amounts.

VII. DECOMMISSIONING

A. *INTRODUCTION*

1. Of all the issues in this important rate case, one of the most unique and most vexing is the issue of decommissioning. Decommissioning of a nuclear power plant is the removal of contaminant radioactive material down to residue levels considered acceptable for permitting unrestricted use of the plant and its site. While the regulation of activities related to decommissioning of nuclear power plants has traditionally been within the purview of the Nuclear Regulatory Commission (NRC), the actual collection of decommissioning funds by a related utility is accomplished through financial arrangements subject to approval by a utility regulatory commission.

2. Pursuant to the requirements of House Bill 2927, the Commission must determine whether a utility having an ownership interest in the Wolf Creek Nuclear Power Plant has provided a method to assure that the cost of any decommissioning of the facility will be paid for by the utility. Three issues must be addressed by the Commission:

(1) the alternatives available for physical decommissioning of the facility;

(2) the total estimated cost of decommissioning the facility; and

(3) the appropriate method of collecting funds for ultimate use in decommissioning the facility.

B. *PHYSICAL DECOMMISSIONING*

1. Under present technology, there are five basic alternatives for decommissioning nuclear facilities:

(a) mothballing

(b) entombment—with delayed dismantling

(c) DECON—immediate dismantling

(d) SAFESTOR—mothballed/delayed dismantling

(e) ENTOMB—entombment/delayed dismantling

2. Both Neil Talbot, staff witness, and Thomas La Guardia, witness for the partner applicants, recommended the DECON alternative as being the current, state-of-the-art alternative. No witness disputed this testimony. We have no difficulty in approving the DECON method of decommissioning at this time, subject to future modification as events and technology dictate.

C. *COST*

1. Both Messrs. LaGuardia and Talbot have suggested total estimated cost figures to be used as an assumption for revenue requirement purposes. Mr. LaGuardia did a site specific study tailored specifically for Wolf Creek. He is regarded as an eminent authority in the field, having been directly involved in the decommissioning of BONUS and Elk River reactors, having co-authored the U.S. Department of Energy's "Decommissioning Handbook" and having prepared numerous site-specific decommissioning cost estimates. (LaGuardia, TR. V. p. 1079). Mr. LaGuardia estimated cost figures are based on a 40-year life of plant, are in constant 1983 dollars, do not include inflation and include a 25 percent contingency factor. (Ibid.). Both Mr. LaGuardia and Mr. Talbot proposed a regular, periodic review of the total estimated decommissioning costs.

2. Staff witness Talbot disagreed sharply with Mr. LaGuardia's estimated decommissioning costs. Mr. Talbot is not a recognized authority in the field and did not do a site-specific study. Mr. Talbot emphasized trends over time in the decommissioning area and reviewed the wide range of uncertainties involved, the fluctuating range of cost estimates and the consistent tendency of industry cost estimates to rise over time. Mr. Talbot concluded that 300 million dollars (in 1983 dollars) was a more realistic cost estimate. On questioning from the bench during his rebuttal testimony, Mr. LaGuardia updated his 1983 estimates to 1985 dollars and indicated ". . . it would certainly be higher . . . 130, 140, 150 million is possible." (TR. Vol. XXX, p. 8956).

3. The evidence is clear that decommissioning cost estimates are inherently uncertain and speculative. Mr. Talbot's testimony graphically outlined the historical escalation in cost estimates. To date, there has been no actual experience decommissioning a large, commercial nuclear plant and cost estimates have traditionally been low. Also, the current shortage (indeed non-existence) of the sites for the disposal of large quantities of radioactive waste makes detailed estimates of shipping distance and cost virtually impossible.

4. On the other hand, Mr. LaGuardia's study was tailored specifically to Wolf Creek in that it utilized Wolf Creek design and elevation drawings and plant description. The different plant characteristics of nuclear units are such that a site-specific study is clearly of more value than general trend observations, however valid.

5. We believe the most realistic cost estimate, at this point, to be the mid-point of Mr. LaGuardia's updated estimate—$140 million.

D. *LIFE OF PLANT*

Although there was conflicting testimony on the estimated life of the plant, we believe that the NRC and

general industry estimates of 30 years is a valid and realistic life to utilize for purposes of decommissioning estimates.

E. *FUNDING OF DECOMMISSIONING*

1. The Nuclear Regulatory Commission has identified six major alternatives available to utilities for funding decommissioning. These can be divided into two groups: plant specific approaches and pooled approaches. At this time, no pooled approaches are available to companies. Examples of pooled approaches include surety bonds, decommissioning insurance and funding for general tax revenues.

2. Of the plant specific approaches, there are three basic alternatives for funding decommissioning: prepayment, contributions to an external trust during the life of the plant and contributions retained by the companies in internal reserves. The plant specific approaches are identified as:

(a) prepaid plan

(b) external trust fund,

(c) unsegregated internal fund,

(d) segregated internal fund.

Staff has proposed the external fund method be employed by all the Wolf Creek partners.

3. The NRC has suggested five criteria for evaluating alternative financing mechanisms for nuclear decommissioning:

(a) degree of assurance that the funds will actually be available at the time of decommissioning;

(b) cost;

(c) intergenerational equity—that the cost of decommissioning be spread equitably to all ratepayers throughout the life of the facility;

(d) flexibility—responsiveness to changes in the basic assumptions;

(e) adaptability—ability of the plan to adapt to different ownership and jurisdictional arrangements. See Wood, "Assuring the Availability of Funds for Decommissioning Nuclear Facilities," NRC Report, March, 1983.

4. In determining the appropriate funding mechanism to be employed, the testimony of the witnesses must be viewed in the context of the NRC criteria.

5. Applicant KCPL is, therefore, ordered to file tariffs to begin collecting its proportionate share of $140 million over a time frame of 30 years to be utilized for the purpose of physical decommissioning of Wolf Creek Generating Station.

6. KCPL, through its witness James K. Liberda, proposed an unsegregated internal funding mechanism. (Liberda, XII TR. p. 33651). Mr. Liberda testified that KCPL proposed to utilize a negative net salvage approach. According to Mr. Liberda, under the KCPL plan, the book depreciation charges are increased by a provision for decommissioning. The additional revenues resulting from this adjustment are used internally by the company. The use of internally generated funds reduces the need to raise externally supplied capital and thus saves financing costs. When the time for decommissioning comes, the company would use internally generated and borrowed funds to cover the actual cost of decommissioning. Mr. Liberda further testified that the negative net salvage method provides a reasonable degree of assurance that funds will be available for decommissioning at the time they are necessary.

7. Staff witness Talbot pointed out that the previously referenced NRC study found that the most important criteria were assurance, cost and equity. Mr. Talbot recommended that the external funding mechanism be

ordered for all the Wolf Creek partners. (Talbot, TR. XXII, p. 7347). Mr. Talbot also pointed out that that it is inevitable that a certain amount of trade-offs between the criteria be considered. For example, the first trade-off is between the concepts of intergenerational equity and assurance. While the pre-payment method gives a greater assurance of availability, the general view is to prefer spreading the collection over the expected life of the plant. (Talbot, ibid).

8. Ordinarily the external method, while providing the greater degree of assurance, would cost more than the internal method. This is because of the combination of the lower rate of return earned on the investments of the trust and the fact that the return is taxed, compared with the higher return earned on an unsegregated internal trust which is the avoided cost of capital to the utility company itself. However, in this regard, the testimony of KG&E witness Thomas Gayoso is instructive. Mr. Gayoso testified that after performing an in-depth study of the different alternatives, he was of the opinion that an external fund is the most viable alternative because it represents the best balance between risk and cost. Mr. Gayoso testified that the cost advantage to the internal method had been diminished because of recent developments affecting the income tax deductability of decommissioning accruals and that this was a crucial factor in KG&E's choice.

9. According to Mr. Gayoso, the Deficit Reduction Act of 1984 establishes special rules for nuclear decommissioning cost treatment. In general, the special rules allow as a deduction for any taxable year payments made to an external fund, subject to certain limitations. These new developments and other factors listed in his testimony persuaded Mr. Gayoso to recommend an external fund for KG&E.

10. KG&E's internal funding mechanism emphasizes the criteria of cost savings and flexibility over both as-

surance and equity. Moreover, Mr. Liberda's testimony regarding cost savings is subject in light of the tax savings possibilities in the Deficit Reduction Act of 1984. We believe the better option to be the external funding one and KCPL is ordered and directed to immediately seek proposals for an external funding mechanism and to submit a plan for Commission approval as soon as possible.

11. Consistent with testimony from all the witnesses, the Commission will review the decommissioning component of this Order at least every three years.

VIII. WOLF CREEK O&M EXPENSE

1. Included in the application in this matter was applicant's share of the $64.9 million in Operations and Maintenance expenses projected for Wolf Creek, not including nuclear fuel expenses. In the common hearing portion of these proceedings, staff proposed two adjustments. The first was to exclude $202,989 in EEI assessments for TMI cleanup costs. The other adjustment was to adjust out the salary and fringe benefits of the Project Director who no longer works on the Wolf Creek site. The two adjustments totaled $588,564.

2. Applicant did not contest staff's adjustment and no specific adjustments were proposed by the other parties. The Commission finds these adjustments appropriate and reasonable and accordingly adopts them. Applicant's share of these adjustments is $276,625 (Kansas jurisdictional—$89,242). The Commission would expect staff to evaluate the actual O&M expenses in the permanent case to determine their reasonableness.

IX. WOLF CREEK DEPRECIATION RATE

1. Applicants in this case originally requested a depreciation rate of 3.53 percent based on a forty-year life. The applicants' witness, James Aikman, noted that re-

maining life depreciation was more appropriate than straight line rates but at the beginning of as asset's life, there was no difference in the resulting rates. Staff recommended a straight line depreciation rate of 3.44 percent. As sponsored by witness Melinda Mosher, this rate was based on a span life of thirty years, annual interim retirements of 12 percent and a net salvage rate for interim retirements of —6 percent. Her rate did not allow for forecasted interim additions under the theory that to do so would allow for recovery of investment not yet made.

2. Applicants stipulated to staff's proposal for purposes of this case only and without implication for the useful life of the plant. Other parties also stipulated to the staff recommendation. The Commission finds the staff depreciation rate of 3.44 percent reasonable and adopts the same. We should note that in making this finding, it is unnecessary to determine whether remaining life depreciation or the straight line method is most appropriate for Wolf Creek, since the rates would be the same under either at this time. We expect to address this issue some time in the future and would merely indicate that, in view of the unique nature of this investment we do not foreclose use of remaining life.

X. MISCELLANEOUS

A. *FUNDING FOR PAYMENT OF DIVIDENDS*

1. From 1977 to 1984, the owner utilities found themselves in a restrictive financial situation. Nevertheless, dividends were not only paid but increased during this time period. In light of the financial condition of the owner utilities, it has been argued dividend payments should have been suspended.

2. If it is determined that an electric utility has borrowed funds in order to pay dividends, and the borrowing to pay dividends was imprudent, the Commission may

adjust the utility's revenue requirement accordingly. K.S.A. 66-128e.

3. There has been no conclusive evidence that KCPL externally financed the payment of dividends during the construction of the Wolf Creek Generating Station. Over the course of the construction program there appears to have been adequate internal cash flow to meet the cash payment of dividends, though the company may have borrowed funds to meet temporary shortfalls.

4. The Commission is unable to conclude the payment of dividends during construction of the Wolf Creek Generating Station was imprudent. The prudence of dividend payments must be assessed in light of the circumstances that existed at the time the payments were made and irrespective of the prudence of the decision to invest in, or continue investing in, the Wolf Creek Generating Station. Under the conditions that existed it is doubtful suspending dividend payments would have improved the owner utilities' financial conditions or would have reduced the ultimate cost of building Wolf Creek. If dividends had not been paid during the construction phase of the Wolf Creek Generating Station, the owners would likely have been unable to issue common stock at or near its book value.

5. Although the payment of dividends may not have been imprudent, we must express concern about the decision to increase dividends from 1977 to 1984. Particularly during the latter stages of the project, increasing dividends may not have been in the best interest of the company, the stockholders or the ratepayers. If dividends had not been increased, additional funds would have been available for internal funding of construction costs.

6. It is not clear that dividend payments *per se* during construction of the Wolf Creek Generating Station were an imprudent decision on the part of the owner utilities.

B. *IMPOSITION OF WOLF CREEK FINES AND PENALTIES AND RATEMAKING TREATMENT THEREOF*

1. NRC Inspection Reports reveal KG&E's quality assurance function was ineffective in the early years of construction of Wolf Creek. (Exhibit G-Staff-63, p. VIII-22).

2. Quality related concerns resulted in increased monitoring by the NRC, the issuance of citations and the imposition of civil penalties. (Exhibit G-Staff-63, p. XI-32, Schedule VIII-6, p. 121). For example, in the 1983 the owner utilities were assessed a $40,000 civil penalty for failure to adequately control activities affecting the quality of safety related systems. (Exhibit G-Staff-63, p. XI-33).

3. With regard to the proper ratemaking treatment of such fines and penalties, the Commission is not inclined to allow expenses associated with the payment of fines and penalties to be passed through to the ratepayer. Pursuant to K.S.A. 66-128i, fines and penalties assessed by the NRC are presumed to have resulted from a lack of prudence and if the presumption is not rebutted by competent evidence, the Commission may reduce the utilities' revenue requirements accordingly.

4. In this case, the fines assessed by the NRC were properly excluded from the utilities' rate requests. (Brown, TR. Vol. IV, p. 1285).

C. *PERIODIC REPORTS*

1. Inherent uncertainties surrounding commercial operation of the state's first nuclear generating facility require the rate relief granted to be interim in nature, subject to true-up at a subsequent proceeding. Without historic data, operating and maintenance costs must be projected. The fact that a plant the size of Wolf Creek has not been retired creates great uncertainty about the

cost of decommissioning. The effect Wolf Creek will have on the owner utilities' overall generating mix has prompted concerns about fuel savings, reliability, the need for power and the cost of replacement power. These and other issues cannot be addressed with the desired level of certainty until actual operating data is available.

2. The existence of excess generating capacity and the decision to disallow costs associated with the amount of capacity not required to be used has magnified the importance of accurately assessing and continually evaluating system peak demand and load growth. If the demand for capacity grows, and a greater amount of the Wolf Creek Generating Facility is required to be used, appropriate adjustments may be made.

3. In light of these uncertainties, and in anticipation of subsequent true-up proceedings, periodic review and oversight of certain Wolf Creek related issues will be necessary.

4. Pursuant to the authority vested in the Commission under K.S.A. 66-101, *et seq.*, KCPL is hereby instructed to file formal quarterly reports concerning the Wolf Creek Generating Station's: 1) equivalent availability; 2) capacity factor; 3) scheduled and forced outages; 4) operating and maintenance expense; and 5) decommissioning estimates. In addition, the quarterly reports must include an evaluation of total system peak demand, total system load growth and information concerning insurance coverage for property damage, liability and replacement power attributed to incidents at Wolf Creek.

D. *JOINT UNIT COMMITMENT AND ECONOMIC DISPATCH*

1. Pursuant to the utilities' obligations to provide, and the Commission's authority to require, reasonably efficient and sufficient service, the Commission has the

responsibility to monitor the utilization of generating facilities of jurisdictional utilities.

2. The commercial operation of the Wolf Creek Generating Station will alter or otherwise affect the unit commitment and dispatch practices of KG&E, KCPL and other interconnected utilities. (Russell, TR. Vol. A-7, p. 1636-1642; Evans, TR. Vol. A-7, p. 1856-1861, 1864-1865; Trask, TR. Vol. A-7, p. 1887-1888; Branca, TR. Vol. A-7, p. 1916-1917; Pauley, TR. Vol. A-7, p. 1734-1735, 1740-1741).

3. The objective being to minimize costs while ensuring adequate and reliable service, the Commission encourages jurisdictional utilities to conduct a comprehensive evaluation of centralized dispatch, joint unit commitment and other means of improving coordination in wholesale markets and increasing economic efficiency and overall reliability. (Russell, TR. Vol. A-7, p. 1642-1648, 1665-1666; Lanzalotta, TR. Vol. A-7, p. 1623-1624; Pauley, TR. Vol. A-7, p. 1735-1737, 1742-1744).

4. The optimal utilization of generating facilities, and the reliability of existing generating facilities and available reserves should also be considered in the utilities' evaluation of methods to enhance economic coordination among interconnected utilities. (Russell, TR. Vol. A-7, p. 1658-1660, 1669-1670; Lanzalotta, TR. Vol. A-7, p. 1609-1615; Evans, TR. Vol. A-7, p. 1841-1854, 1872-1875; Trask, TR. Vol. A-7, p. 1880-1883; Pauley, TR. Vol. A07, p. 1733-1735, 1737, 1747-1748).

XI. KCPL COMPANY—SPECIFIC ISSUES

A. *INTERIM RATE RELIEF*

1. Staff witness Yates testified that any rate increase the Commission authorizes as a result of this rate application should be of an interim nature, subject to refund, after consideration in a permanent rate case based on a period of actual WCGS commercial operation. His recom-

mendation stems from his analysis of the budgeted or forecasted test year used in this case. He first discussed the disadvantages inherent in basing rate relief on a forecasted test year: speculation about a great deal of different operating data is required; the forecast or budget could be inflated to maximize the rate request; and management judgment rather than objective, verifiable data is being evaluated. He next described problems encountered in his review of the 1985 budget: difficulty verifying whether construction projects would be completed within the test year; concern that the individual components of the budget might be overestimated given the decentralized nature of the process (managers might put slack in their budgets); the lack of uniform parameters in the corporate planning guide; inability to evaluate the predicted generation mix; variances between past budgeted and actual revenues and expenses; and difficulty assessing the projected WCGS costs.

2. Pursuant to a stipulation of parties, the test year in this case is a projection of the calendar year 1985 adjusted to reflect 12 months operation of WCGS, a 13 month average rate base, and fuel inventory and cash working capital calculated according to the principles adopted by the Commission in the last KCPL rate case, Docket No. 133,002-U. This projected test year was to be reconciled to the historic 12 month period ending March 31, 1984.

3. KCPL requested permanent rate relief—either through a one time increase or a phase-in plan. Thus, Mr. Levesque testified for KCPL in rebuttal to Mr. Yates' proposal that this case be interim. He disagreed that basing rate relief on an adjusted historical test year is any better basis for rate relief than a projected test year. He emphasized that in either case, variables and relationships among variables can change, and this latter fact is ignored in an historical test year approach. He

noted that overall, there has been very little variance between actual and budgeted O&M expenses. He testified that KCPL's budget system engenders a high degree of accuracy, and that KCPL has monitoring and variance reporting procedures in effect as part of the budget procedure. Contrary to Mr. Yates's position, Mr. Levesque finds a forecasted test year to be a better basis for setting future rates than an adjusted historical test year. He believes that KCPL seeks to budget the optimum plan that balances the needs of all concerned.

4. In its brief, KCPL asserted that the test of whether rates should be interim is whether a refund is possible. We disagree. We have considered applicant's testimony regarding the use of a forecasted test year and the accuracy of its budgeting process. We find that this case has certain unique aspects that warrant interim rate case treatment. This rate application concerns the commercial operation of the first nuclear generating station for the owners and for Kansas. Operating expenses for such a plant are uncertain having never before been experienced or estimated by these owners. The fact that a budgeted or forecasted test year is used in this case is not the sole basis for our decision that this case should be interim in nature. Primarily we believe interim rates are appropriate here because of the many uncertainties involved with the commercial operation of a major base load nuclear generating station. We believe that permanent rate relief can only be granted after a period of actual commercial operation of the WCGS. Therefore, we direct that KCPL base its permanent rate application on six months of actual operating data from the WCGS. This time period, less than a year, will give the minimum operating history we believe is necessary to serve as the basis for permanent rate relief. The six month period shall commence as of the initial date of WCGS commercial operation, September 3, 1985.

B. *NON-WOLF CREEK RATE BASE MATTERS*

1. With the exception of the WCGS issues discussed above, and certain aspects of the jurisdictional allocation process, discussed below, there is no contested issue with regard to KCPL's jurisdictional rate base. Staff proposed a total of nine adjustments to KCPL's jurisdiction rate base. Staff Adjustment No. 1 reflects staff's jurisdictional allocation methodology, sponsored by staff witness Marker and discussed in a subsequent portion of this order entitled "Jurisdictional Allocations." The effect of this adjustment is to reduce rate base $30,710,000. We adopt this adjustment as the proper quantification of our adopted allocation factors.

2. Staff Adjustment No. 2 increases rate base by $52,879,000 as a result of reclassifying certain customer related capital. Staff also included the customer related capital in the capital structure at zero cost. The Commission finds this treatment appropriate and adopts Staff Adjustment No. 2 to rate base.

3. Staff Adjustment No. 3 to rate base is a quantification of the PMA adjustment discussed previously in this order. In addition, Adjustment No. 3 is dependent on our decision related to jurisdictional allocation factors. We adopt Staff Adjustment No. 3 to rate base because it properly reflects the earlier adopted PMA adjustment and our adopted allocation factors by reducing rate base $39,606,000.

4. Staff Adjustment No. 4 has no dollar impact on rate base. This adjustment reflects the retirement of Hawthorn Unit Nos. 1-4, by decreasing both the electric plant production account and the accumulated provision for depreciation of electric production plants. The Commission adopts Staff Adjustment No. 4 to rate base, to the extent that it is consistent with our findings regarding the retirements of those units as discussed earlier in this order.

5. Staff Adjustment No. 5 reflects the application of staff's recommended depreciation rate for nuclear production plants. The owners did not contest this staff recommendation. We adopt Staff Adjustment No. 5 and approve of the methodology used to quantify staff's depreciation rate which we adopted earlier in this order.

6. Staff Adjustment No. 6 removes from rate base $203,000 of transmission plant which will not be completed during 1985. We find Adjustment No. 6 to be in conformity with law and Commission practice, and therefore, we adopt Staff Adjustment No. 6 to rate base.

7. Staff Adjustment No. 7 was withdrawn by staff witness Proctor prior to hearing because it conflicted with a stipulation regarding the computation of fuel inventory for this particular rate case.

8. Staff Adjustment No. 8 to rate base decreases rate base by $168,000 for the LaCygne Turbine Plant that will not be completed during 1985. We find that this adjustment is reasonable and proper and adopt Staff Adjustment No. 8 to rate base.

9. Staff Adjustment No. 9 to rate base increases net cash working capital, and thus rate base, by $4,509,000. This adjustment reflects changes due to staff's adjustments to operations. Because we have not adopted these adjustments as proposed, we direct that Adjustment No. 9 be modified to reflect our decisions regarding KCPL's operating statement. We adopt Staff Adjustment No. 9, as modified herein, to increase net cash working capital (and rate base) by $4,055,000.

C. *NON-WOLF CREEK OPERATIONS MATTERS*

1. Staff proposed ten adjustments to operations.

2. Staff Adjustment No. 1 to operations reflects staff's jurisdictional allocation methodology as proposed by staff witness Marker. We have adopted staff's proposed juris-

dictional allocation methodology in another part of this order entitled "Jurisdictional Allocations." We find Staff Adjustment No. 1 to operations to be a corresponding adjustment to Staff Adjustment No. 1 to rate base, which we have adopted. Staff Adjustment No. 1 to operations increases net operating income by $945,000. We find it to be reasonable and proper and adopt it as proposed.

3. Staff Adjustment No. 2 to operations is uncontested by KCPL. This adjustment quantifies the impact of staff witness Yates' adjustment to Wolf Creek expenses. We have earlier adopted staff's witness Yates' adjustment regarding Wolf Creek expenses and we hereby adopt Staff Adjustment No. 2 to rate base which increases net operating income by $89,000.

4. Staff's proposed adjustment No. 3 would increase production expense by $588,000 to increase the annual provision for decommissioning of WCGS. We have discussed the allowance for decommissioning expense in an earlier section of this order entitled Decommissioning. In conformity with our earlier findings we find staff's adjustment reasonable in principal, but find that the annual provision for decommissioning expense should be $253,000. Therefore, staff's adjustment is reduced to an increase of $253,000 in the annual provision for decommissioning expense.

5. Staff Adjustment No. 4 to operations increases net operating income by $726,000. This adjustment reflects the effect of the depreciation rate that was sponsored by staff witness Mosher and uncontested by the owners. We find Staff Adjustment No. 4 to operations appropriate, and we adopt it as a corresponding adjustment to our earlier adopted depreciation rate.

6. Staff Adjustment No. 5 to operations decreases depreciation and amortization expense. This adjustment corresponds to Staff Adjustment No. 3 to rate base which quantifies the PMA adjustment adopted by the

Commission. Since we have earlier adopted a revision of PMA's proposed adjustment, we find that Staff Adjustment No. 5 to operations must be modified to reflect our earlier modification of the PMA proposed adjustment. We find the methodology staff used appropriate and proper, and adopt Staff Adjustment No. 5, as revised, to decrease depreciation and amortization expense, thus increasing net operating income, by $1,525,000.

7. Staff Adjustment No. 6 to operations decreases the property tax applicant included in its cost-of-service. Staff's proposed adjustment would eliminate property taxes related to the Wolf Creek investment expenditures proposed to be disallowed by staff witness, Dr. Ponce de Leon, of Project Management Associates, (PMA).

8. KCPL witness Cattron testified that ad valorem or property taxes for KCPL are a legitimate cost of operating and owning property in any taxing district and cannot be avoided. He also states that a reduction in KCPL's assets will not necessarily avoid property taxes but merely redistribute the burden among taxpayers. Mr. Cattron apparently believes that the intent of Staff Adjustment No. 6 is to adjust the property tax expense to the actual property tax which KCPL will incur.

9. Staff, on the other hand, indicates that the purpose of the adjustment was to exclude property tax expense associated with an investment which staff contends should not be allowed in rate base. KCPL's estimate of property tax expense is an original cost calculation. If a portion of the WCGS original cost is found to be imprudently incurred, it follows then, that a similar portion of property tax is attributable to imprudency. Staff reasons that the ratepayer should not be required to absorb imprudently incurred costs whether attributable to rate base or expenses.

10. The Commission agrees that it would be inequitable to require the ratepayer to bear the burden of ex-

penses incurred due to imprudent investment. Earlier in the order we have disallowed certain WCGS construction costs as imprudent. Therefore, we find Staff Adjustment No. 6 to be reasonable and hereby adopt it. However, because the Commission has previously modified the proposed PMA disallowance, we direct that Staff Adjustment No. 6 to reduce property taxes should be reduced accordingly. Therefore, we adopt a modified adjustment of $252,000 to decrease the allowable property tax expense associated with WCGS.

11. Staff Adjustment No. 7 to operations would decrease Operations, Maintenance and Depreciation expenses. Staff asserts that the adjustment is necessary to eliminate certain expenses included in the applicant's cost-of-service for the retired Hawthorn Units 1-4. Staff reasons that these expenses will either not be incurred or should not be charged to customers through inclusion in the cost-of-service since the retired units are no longer used and required to be used. The adjustment would decrease operations expenses by $6,654,093 (total company). Using staff's allocation method, which we find reasonable and adopt elsewhere in this order, the Kansas jurisdictional adjustment would be $2,143,198.

12. KCPL does not contest most of the adjustment. However, KCPL does oppose the adjustment to the extent excluded expenses relate to "common facilities" and "general company expenses." KCPL asserts that $1,216,000 is necessary to maintain certain common facilities which had previously been allocated to Hawthorn Units 1 through 4 and Unit 5 are necessary expenses in order to maintain operation of Unit 5. Examples of common facilities are the administration building, in-take structure, railroad spur, and all other facilities necessary to operate Unit 5. General company charges are those costs related to general operations of the company but allocated to specific generating units. KCPL asserts that the retirement of Units 1 through 4 does not obviate the need to

incur expenses related to the company's clearing accounts and computer center. The company requests an allowance of $546,000 for general company expenses.

13. Additionally, KCPL opposes a portion of adjustment No. 7 to operations because staff has proposed to eliminate property tax on Units 1-4 from the KCPL cost of service. KCPL contends that even if the units are retired, KCPL will be liable for continuing ad valorem tax expense, levied against the retired units. KCPL also asserts that staff's proposal excludes a portion of the property tax expense associated with Hawthorn common facilities.

14. As noted previously in this order, the Commission is including the generating capacity represented by Hawthorn Units 1 and 2 in the Commission's computation of excess capacity for rate of return purposes regarding WCGS. Hawthorn Units 1 and 2 represent 43.33 percent of the generating capacity represented by Hawthorn Units 1-4. Accordingly, the Commission adopts, as reasonable, the proposition that 43.33 percent of the operations expense included in KCPL's original application represents an appropriate level of expenditures for maintenance of Hawthorn Units 1 and 2. The remaining expenses associated with Hawthorn Units 3 and 4 should be eliminated in conformity with the spirit of staff's original adjustment. This is consistent with the ratemaking principal that expenses associated with facilities which are not used and required to be used in service are not properly included in a utilities cost-of-service. Implementation of this principal results in a reduction to staff's adjustment of $929,000, thereby reducing staff's adjustment to an exclusion of $1,214,000 from KCPL's cost-of-service.

15. Staff Adjustment No. 8 to operations decreases depreciation and amortization expense by $4,000. This adjustment corresponds to Staff Adjustment No. 6 to rate

base regarding the transmission plant that will not be completed in 1985. We have earlier adopted Staff Adjustment No. 6 to rate base, and we find it is necessary to adopt a corresponding adjustment to depreciation and amortization. Therefore, we adopt Staff Adjustment No. 8 as proposed.

16. Staff Adjustment No. 9 to operations decreases the applicant's operation and maintenance expenses and payroll taxes in order to reflect the staff's proposed elimination of 121 vacant positions from the budgeted 1985 cost-of-service. KCPL contends that the adjustment more properly should relate to 94 positions rather than 121 positions. Additionally, KCPL contends that staff improperly overstates the amount of the adjustment because only 75 percent of KCPL's labor costs are charged to electric operations and maintenance expense.

17. Staff witness Proctor testified that the exclusion of 121 vacant positions from the KCPL cost-of-service was based on KCPL's response to Data Request No. 9068. That data request response indicated a variance between the March 31, 1984 staffing levels and the 1985 test year budget of 121 employees. In addition, Mr. Proctor testified, that over a 34-month historical period ending in December, 1984, KCPL averaged more than 150 vacancies in budgeted payroll. Additionally, the apparent trend has been a steadily increasing number of vacancies during an historical period prior to the KCPL application. Given these circumstances, staff's adjustment excluding the expense associated with 121 employee positions appears appropriate, although perhaps an exclusion of a greater number of employee positions may also have been supportable.

18. KCPL witness Yetter stated that Mr. Proctor's reliance upon Data Request No. 9068 is not justified because to do so compares the actual number of employees to the authorized number of positions rather than the

budgeted number of positions. Mr. Yetter states that the KCPL rate request is based on KCPL's 1985 pro forma budget, not its 1984 budget. Therefore, he reasons, a proper analysis would be to compare actual manpower levels to pro forma budgeted manpower levels.

20. On cross-examination, Mr. Yetter was presented a copy of staff's Data Request No. 9068. He indicated that he had prepared KCPL's response and that response attributed part of the variance between KCPL's March 1984 income statement and the test year income statement to vacant positions included in the test year budget. The vacant positions are attributable to an assumption that they would be filled during the test period. We find that assumption inappropriate given that Mr. Yetter also testified that employment levels will remain stable during the test year. Mr. Yetter offered no evidence which would indicate staff's interpretation of the response to Data Request No. 9068 is inaccurate. When asked whether the response did in fact support an adjustment for 121 employee positions, he indicated that he had not attempted to reconcile the response with any number of vacancies.

21. We find that the 121 vacant employee positions is supported by the evidence as presented by staff witness Proctor. Although the lesser number of 94 vacant positions may also be supportable, we find no evidentiary basis on which to reduce the adjustment. Additionally, the Commission notes that based on the historical trend an adjustment excluding a greater number of vacant employee positions may have been justified. As noted by Mr. Proctor, the trend has clearly been one of an increasing number of employee vacancies. This was in part, supported by the testimony of Mr. Yetter. In addition, it is likely that staffing levels will be reduced upon commercial operation of WCGS. As KCPL witness Evans states, "manning levels will need to be reviewed carefully to determine whether additional reductions in personnel could be accomplished." (Evans, TR. Vol. A-7,

p. 1826). The notion that staff's adjustment should be reduced by 25 percent because only 75 percent of employee expense is allocated to KCPL electric operations is not well-founded. Although the 75 percent allocation to electric operations is true on a company wide basis, the same is not true when referring to employee expense in the company's electric operations. Since the 1985 budget, upon which the adjustment is based, is KCPL's electric operations budget we find staff's adjustment excluding the expenses associated with 121 vacant employee positions is both reasonable and supported by the evidence. Therefore, staff adjustment No. 9 to operations is hereby adopted.

22. Staff Adjustment No. 10 to operations adjusts current income taxes to reflect the earlier proposed staff adjustments to operations. This adjustment may be viewed as a "fallout" adjustment. To the extent that we have adopted other adjustments to operations in this order, we necessarily adopt Staff Adjustment No. 10 to operations, as modified to correspond to our earlier findings regarding the other adjustments to operations.

D. *SUMMARY OF THE RATE BASE AND OPERATING INCOME ADJUSTMENTS*

The Commission therefore finds that based on the above findings, the test year pro forma rate base is $409,958,000, and the test year pro forma operating income is $29,099,000, as set forth in the Appendix attached to this order.

E. *RATE OF RETURN*

1. Two witnesses presented testimony on rate of return. Mr. Michael York testified on behalf of the Commission staff and Mr. Bernard Beaudoin testified on behalf of KCPL. To evaluate the rate of return for KCPL, staff and KCPL used the discounted cash flow (DCF) methodology. KCPL also utilized the risk premium method

to support its DCF analysis. The DCF has been the predominant method of calculating the rate of return on common equity before this Commission and was the accepted methodology in the last KCPL rate case.

2. In performing the DCF analysis, staff used directly observable market data because KCPL is a publicly traded utility.

First, staff estimated the dividend payments for the four quarters beginning with the second quarter of 1985 and ending with the first quarter of 1986, by analyzing various market publications which publish dividend estimates. Using these estimates, staff arrived at a second quarter 1985 dividend of 59 cents, a third quarter 1985 dividend of 59 cents, a fourth quarter 1985 dividend of 59 cents and a first quarter 1986 dividend of 61 cents.

3. Second, staff selected the price at the close of trading on March 21, 1985, to use a current price in the DCF analysis. The anomalies which can bias a single day price choice were avoided by staff through tracking the prices during the period of analysis and choosing a day with an unbiased price. The price at the close of trading March 21, 1985, was $22.00. Staff selected a representative price of a recent day for use in the DCF analysis because that is the price at which an investor can currently purchase stock. An average of annual, semi-annual or monthly stock prices was not used because investors cannot buy stock at average prices. The Commission believes that the current price is an appropriate price to use in the DCF analysis because it reflects all the information available to a company's investors regarding future profitability and risk of the company. Therefore, the yield investors require on any date is the discount rate that equates the price and the expected stream of future dividends on that base.

4. Third, Staff derived the average growth rate for KCPL by averaging both historic growth rates and future

growth estimates to arrive at an average growth rate of 4.00 percent. The Commission finds that staff's estimate of growth was an appropriate estimate to use in its DCF analysis because investors review both historic results and future growth projections when making investment decisions. Of the eleven estimates used by staff to obtain the average growth rate, three were historic and eight were forecasted. This tended to weight the analysis in favor of future projections. Such weighting allowed a better reflection of future growth expectations since the "Wolf Creek operational period" should be quite different, from a financial standpoint, from the "Wolf Creek construction period." Staff considered an average growth value in the 3.00 to 4.00 percent range appropriate based on the market's assessment of future growth although the 4.00 percent estimate was considered the best estimate.

5. Last, staff arrived at an estimate of the market cost of equity for KCPL of 15.42. Staff then adjusted it to reflect the effect on stock price of floating new stock, market information, and supply and demand pressures to arrive at a reduction in the relative stock price, on the average, of 5.37 percent. The Commission believes that staff's adjustment was proper because flotation costs are incurred only in the acquisition of funds through common stock issuances and are not incurred with funds acquired through retained earnings. Therefore, staff's use of the adjusted cost of equity figure for the portion of the funds acquired through common stock issuances and the market cost of equity for the funds obtained from retained earnings was appropriate. The resulting weighted cost of 15.80 percent was staff's recommended cost of equity.

6. In making its recommendation, staff took into account that the market reflects all of the information available to investors about a company. Therefore, the Commission finds that staff's recommendation reflected

investors' perceptions of the risk of the company. This would certainly be true in the instance of a public utility, such as KCPL, because of the widespread dissemination of information concerning utilities' nuclear construction projects and the rate cases dealing with nuclear plants once they are completed. Investors and forecasters are aware of the range of potential outcomes of nuclear plant rate cases. They are also aware of the potential effects of nuclear rate case decisions on utility companies and they take those potential effects into account when making investment decisions and forecasting determinations. Because the current market price reflects KCPL investors' perceptions of the potential outcomes of the pending rate case, no adjustment for any potential outcome, not even for a potential elimination of KCPL's ability to pay dividends, should be made.

7. Staff's recommended cost of equity differed from the equity recommended by KCPL in several respects. First KCPL estimated that investors expect a 6.00 to 7.00 percent dividend growth rate before they will invest in KCPL stock. In arriving at this estimate, KCPL only evaluated cash dividend continuous (or trended) growth rates from the 1979 to 1984 period. Based on that data, the 6.00 to 7.00 percent range was an accurate estimate but it failed to consider the many other criteria investors take into account when making investment decisions and the factors which affect the growth rates of dividends. Staff, in developing its 4.00 percent average growth rate, took into account eleven different valuations of growth which reflected a variety of factors. The Commission finds that staff's method was a more comprehensive and, therefore, a more accurate basis for an estimate than KCPL's reliance on only one factor.

8. In measuring the current dividend yield, KCPL divided the current annual dividend rate by the current market price. KCPL used a twelve-week average of 14.00 percent as the appropriate dividend yield. KCPL used

the twelve-week average to avoid any stock yield irregularities. A spot market price is the better price to use because it is more reflective of investor expectations than an average price because investors do not buy average prices or trends. Also, the anomalies that can bias a single day price choice can be avoided through tracking the stock during the period of analysis and choosing a price of an unbiased day. The most recent stock price is the theoretically correct evaluation to use because it reflects all the information available to a company's investors. In arriving at its dividend estimate, KCPL used a historical perspective by utilizing the dividend yields of the last four quarters. If KCPL had used a spot market yield instead of the average market yield, its recommended cost of equity would have been lower.

9. Last, KCPL included in its definition of flotation costs, price pressure and flotation costs incurred in issuing common stock. It was inaccurate to include both price pressure and flotation costs because the flotation cost adjustment was already included in the adjustment for price pressure. Also, KCPL applied flotation costs and price pressure to both common stock proceeds and retained earnings while staff applied flotation costs and price pressure only to common stock proceeds. It was incorrect to apply flotation costs and price pressure adjustments to common stock proceeds and retained earnings because the costs were incurred only in the acquisition of funds through flotation of common stock. Retained earnings were not acquired through a stock issuance and, therefore, were not subject to flotation costs and price pressure.

10. In its brief, KCPL stated it was concerned over the impact on KCPL of staff's recommended total rate increase and expressed the view that if staff's proposal was adopted, including staff's recommended rate of return of 15.80 percent, the end result would violate the fourteenth amendment of the U.S. Constitution. KCPL's reasoning might be sound if the total amount of the

staff's proposed rate increase applied to the total investment in Wolf Creek made by KCPL instead of applying only to the prudently incurred investment. In *Bluefield Water Works and Improvement Company v. Public Service Commission of the State of West Virginia*, 262 U.S. 1176 (1922), the Court held that:

> A public utility is entitled to such rates as will permit it to earn a return on *the value of the property which it employs for the convenience of the public* . . . (Emphasis added) (p. 1182).

Imprudently incurred investment is not employed for the convenience of the public so it should not be included when considering the reasonableness of the return.

11. In *Bluefield Water Works* on page 1181, the Court cited the lower court's decision in the same case (89 W. Va. 736, 110 S.E. 205 at p. 739-740) which stated:

> In our case of *Coal & Coke R. Co. v. Conley*, 67 W. Va. 129, 67 S.E. 613, at said: "It seems to be generally held that in the absence of peculiar and extraordinary conditions, *such as a more costly plant than the public service of the community requires, or the erection of a plant at an actual, though extravagant cost*, or the purchase of one at an exorbitant or inflated price, the actual amount of money invested is to be taken as the basis, and upon this a return must be allowed equivalent to that which is ordinarily received in the locality in which the business is done, upon capital investment in similar enterprises." (Emphasis added)

The Commission finds that the extraordinary circumstances referred to above are present in the instant case and that it is appropriate to determine the recommendation of rate of return coincidentally with the exclusion of imprudently incurred investment. It would be improper not to make a fully informed decision regarding rate of return. In determining a fair return on common equity:

> . . . (R)egulatory bodies and courts have long recognized that the resolution of cost of capitol issues, including the return for common equity, depends primarily upon informed judgment.

(Docket No. 123,773-U Ordered, February 24, 1981, at 65-66. Cited with approval in Docket No. 128,811-U, Order, February 19, 1982, at 94; Docket No. 137,534-U, Order, December 23, 1983, at 80-81; and Docket No. 143,565-U, Order, June 13, 1985, at 12.)

12. The Commission considered all of the evidence relating to this issue, the recommendations of staff and the company and, in its informed judgment, finds that the appropriate rate of return for KCPL at this time is 15.80 percent.

REVENUE DEFICIENCY

1. When a rate of return of 11.236 percent is applied to the previously adopted Kansas jurisdictional rate base of $409,958,000, the result is an operating income requirement of $46,063,000. When compared to test year operating income as adjusted and adopted herein, we find applicant has additional operating income requirements totaling $16,971,000. Assuming an appropriate income tax factor, applicant's gross annual revenue deficiency is $33,703,000 (before fuel savings), as calculated in the Appendix to this order.

2. Applicant, Staff and Johnson County Joint Intervenors presented testimony on the phase-in of the rate increase arising from this case. Witnesses for all three parties agree that a phase-in was desirable to avoid a sudden sharp increase in rates. They disagreed, however, on what percentage increase would justify a phase-in and what period of time should be used.

3. The Commission does not find it necessary to further summarize the evidence on this issue since we conclude that a phase-in of the rate increase we approve herein is not necessary or desirable. After fuel savings,

KCPL ratepayers will realize an increase in rates of approximately 16 percent. We recognize that this increase cannot be said to be insignificant. However, we do believe that it is manageable and does not represent the kind of rate shock which the parties envisioned as requiring mitigation through phase-in. Our conclusion is also based on the fact that a phase-in, because of the accrual of carrying costs on deferred revenues, eventually increases the total cost to ratepayers. In balancing such considerations, we conclude a phase-in should not be ordered.

G. *JURISDICTIONAL ALLOCATIONS*

1. Currently KCPL's jurisdictional rates are based on a 12 coincident peak (C.P.) allocation factor, pursuant to this Commission's last KCPL rate order dated March 29, 1983, (Docket No. 133,002-U). In that order the 12 C.P. method was found superior to the company's 4 C.P. method because the former recognizes investment in base load facilities which are utilized year round and not solely during the summer peak months.

2. In the present rate case, KCPL's witnesses Knodel and LaCapra recommended that production capacity costs be allocated among jurisdictions based on the average of the four coincident summer maximum peak loads. Mr. LaCapra testified that the summer peak is KCPL's central planning concern in assessing the need for new capacity. KCPL's rebuttal witness Sullivan, recommended the 4 C.P. demand allocator as a compromise between the 12 C.P. allocator proposed by the Kansas Commission staff and the 1 C.P. allocator proposed by the Missouri Commission staff. He expressed concern that KCPL might not recover all of its investment if different jurisdictions use different production allocators. Yet Mr. Knodel acknowledged that if KCPL's proposals were adopted in Kansas and in Missouri, KCPL could recover slightly more than 100% of its total investment based

on the different test years used in the two jurisdictions. Mr. Sullivan noted that the F.E.R.C. had adopted the 4 C.P. method. He concluded that the 4 C.P. allocator better reflects the primary cost causative factor in KCPL's investment in generating capacity that is, the need to meet summer peak.

3. Staff witness Marker opposed the 4 C.P. method stating it does not recognize the capacity requirements associated with the eight non-summer months. He recommended that KCPL's production and transmission plant be allocated among the jurisdictions by means of a 12 C.P. allocator because such an allocator recognizes the capacity requirements in all twelve months of a year. Mr. Marker testified that a utility determines the type and cost of its capacity by means of the total loads during all twelve months of the year, not just the annual system peak load. He explained that system peak load may determine the total amount of generation capacity, but not the type and cost of that capacity. To illustrate his point, Mr. Marker noted that with the inclusion of Wolf Creek, 98.6 percent of KCPL's total production rate base is base load capacity on a dollar investment basis, and that on a Kw basis, 85.4 percent of KCPL's production capacity is base load. Further he testified that KCPL's net investment in base load plant is $697 per Kw, while its net investment in other plant is only $57 per Kw.

4. We note that KCPL has filed this rate application because of the anticipated commercial operation of the Wolf Creek Generating Station (WCGS). KCPL's witnesses, Mr. Doyle, Mr. LaCapra, and Mr. Sullivan, acknowledged that WCGS is a base load unit. The issue before us is how to allocate production and transmission plant among the jurisdictions to reflect what portion of that plant is dedicated to the Kansas jurisdictional ratepayers, and therefore, should be paid by them. This is not an issue of pricing to manage load. As Mr. Marker has testified, with the addition of WCGS, production rate

base will be 98.6 percent base load capacity. Earlier in this order we have set forth our findings regarding the valuation of the WCGS for ratemaking purposes. Even in view of these decisions, KCPL's investment in base load facilities will be greater than 94% of its total investment once Wolf Creek is included. (TR. Vol. A-4, p. 881). It is clear that KCPL did not invest in WCGS to serve only summer peak load. Therefore, we find that the 12 C.P. allocation factor is an appropriate method of allocating KCPL's production and transmission plant among jurisdictions. This method better recognizes KCPL's investment in base load facilities used year round, and not solely during the summer peak months.

Class C.O.S.

1. KCPL used a 4. C.P. allocator in its class cost of service. Mr. Marker testified that a 12 C.P. allocator was more appropriate for class cost of service as well as jurisdictional separations of production and transmission related expenses. For the reasons set forth above in jurisdictional allocations, we find the 12 C.P. allocator to be appropriate for use in the class cost of service allocations.

B. *RATE DESIGN*

Electric Space Heating Rate

1. KCPL's current space heat rates range from 3.74 cents per KWH to 3.81 cents per KWH. KCPL witness Knodel, with supporting testimony from KCPL's witnesses LaCapra and Sullivan, proposed that all existing space heat rates be reduced to 3.25 cents per KWH. The proposed 3.25 cents per KWH rate is above the 2.0¢ incremental cost of the service, thus KCPL believes the rate is neither subsidized nor discriminatory.

2. Staff witness Ron Ford recommends no change in the electric space heat rates. He considered the number of customers on the existing rate, the likelihood that they

would switch from electric space heating given their investment in space heating equipment, which has a useful life of fifteen years or more, and the impact on KCPL's non space heating usage customers of a reduction in the space heating rate to 3.25 cents per KWH. He considered the existing space heat rate to be price competitive with some alternative fuels. Mr. Ford also considered that some customers have individual preferences between gas and electricity that affect their decisions to choose gas heat or electric space heat.

3. KPL/Gas Service Company's witness, Mr. Johnson, testified in opposition to KCPL's proposed 3.25 cents per KWH electric space heat rate. Mr. Johnson felt that it was an unfair advantage over the KPL/Gas Service Company gas heating rate. He argued the electric space heating rate should be based on fully embedded costs.

4. We find that it is not unduly discriminatory or unreasonable to establish an electric space heating rate below fully embedded costs and yet above incremental costs. Such pricing recovers variable cost and recognizes electric space heating competes with other fuels in an off peak (non-summer) service. The question is how much of a contribution to fixed cost should be recovered through the electric space heat rate. KPL/Gas Service Company's proposal, in effect, would eliminate the rate and increase the total bills paid for electric space heating service drastically. This would be inequitable given that a lower space heating rate has been available for more than 20 years, and many customers have invested in electric space heating equipment. We find no persuasive evidence in the record to support increasing the space heating rate to cover fully embedded costs.

5. A decrease in electric space heating rates at this time will reduce the contribution to fixed costs with no assurance that the reduction will be made up in additional sales. We find that having the rates remain at the existing levels is the best alternative at the present

time for sustaining the contribution to fixed costs by the ratepayers and attracting additional customers to the service. We find the electric space heating rates should not be lowered at this time and we adopt staff's proposal to continue the rates at their present levels.

General Service Large and Small

1. KCPL now has separate tariffs for the general service large class and the general service small class. The general service small tariff applies to any non-residential customer, and contains a two step declining block energy rate with the size of the first block dependent on the highest annual demand of the customer. The general service large tariff applies to any customer with a minimum billing demand of 10 KW or more per month. It contains a four step declining block demand charge and a four step "hours use" energy rate. A customer's monthly load pattern determines how many KWH are in the respective energy blocks of the tariff.

2. KCPL proposed that the general service large and general service small classes be combined under one tariff with the rate structure similar to the existing general service large tariff. Mr. Giles and Mr. Sullivan sponsored testimony supporting this proposal. Mr. Giles explained that the company's objective is to reduce the average cost per KWH for its general service customers by pricing as follows: (a) reduce the tail block energy rate from 4.0 cents to 3.25 cents per KWH (this would be above the incremental cost of providing service off-peak), and (b) consider only 70 percent of the monthly demands occurring during the winter season for billing demand determination. He explained that this would encourage off-peak use but still deter increasing the summer peak.

3. Staff witness, Ron Ford, recommended that the general service small tariff remain separate from the general service large tariff. He proposed the small rate include a demand charge with no ratchet provision, and a flat

energy rate, rather than a two step declining block rate. He explained that this two part rate (demand and energy), better identifies the different types of costs that a customer puts on a system. He further recommended that the general service small rate not be available to any new customers with demands over 30 KW. Both KCPL and staff's witnesses used data from 30 load research customers of the general service small class in designing their proposed rates. Mr. Ford asserted that, with his proposal, general service small customers would be less likely to receive disproportionate increases as they would under KCPL's proposal. Mr. Giles disagreed stating that the spread of the increases for these customers is about the same under either staff's or KCPL's proposal. However, it is apparent to us from Exhibit A-Staff-16, Schedule C, p. 3, that more load research customers in the general service small class would receive a closer to average increase under staff's proposal than under KCPL's proposal.

4. Mr. Ford also recommended that the ratchet provision in the general service large class be reduced from 80 percent to 70 percent. Since most customers are billed under the ratchet in the winter season, this will decrease the winter billing demand for most customers in the general service large class. He explained that since the energy blocking is determined by the billing demand, more KWH will be priced in the lower energy block under his proposal and this will encourage more off-peak energy use while still controlling the summer peak. Mr. Ford testified that lowering the ratchet is consistent with the theory that the summer peak is not the sole determinant of cost causation.

5. Mr. Giles opposes staff's recommendation that new customers with demands over 30 KW not be allowed to use the general service small rate schedule. He claims a customer with high energy usage but low demand will be billed a lesser amount under the general service large schedule, so the customer would want to switch to that schedule.

6. Mr. Giles also opposes staff's proposal that the summer demand ratchet be reduced from 80 percent to 70 percent in the general service and primary service schedules. Presently a customer's demand is the highest of (1) 80 percent of the highest demand occurring during the summer season, (2) actual demand, or (3) 50 percent of the highest demand occurring during the winter season. KCPL proposes to consider only 70 percent of the actual winter demand, for billing purposes. Most customers are billed based on the summer demand ratchet. The 80 percent demand ratchet would encourage customers to reduce or at least not increase their summer demands. Mr. Giles argues that with staff's proposal to reduce the ratchet to 70 percent of summer peak usage, a customer could increase its summer peak usage without increasing its winter minimum billing demand. KCPL also criticized staff's proposed tail block rate as too high, arguing that off peak usage occurs in the tail block and thus the tail block should not recover as great a proportion of fixed costs as the demand charge and earlier blocks.

7. Intervenors Electro Dynamics, Inc. and Thermo Dymnamics, Inc., quartz growers in the Kansas City area, supported KCPL's rate proposals given the choice between KCPL's and staff's. As general service large customers with high load factors, they believe they will benefit more from KCPL's proposal than the staff's proposal. However, these intervenors also recommended the Commission begin to review the possibility of developing a rate for customers with constant resistive loads. The Commission notes that Mr. Sullivan testified the present rate structures already benefits high load factor customers. (TR. Vol. A-3, p. 522-537).

8. The Commission has fully considered the parties positions with regard to the general service large and small tariff structure. We find that the GS Large and Small classes differ significantly in KWH usage and

average monthly load factor. (Giles, TR. Vol. A-7, p. 1803 and Vol. A-3, p. 621). We find the impact on the GS Small customers would be too great if combined with GS large class and, therefore, we order the tariffs should remain separate for the general service large and small classes.

9. We note that data was available for only thirty customers in designing the rates for the General Service Small class, which has over 6,000 customers. Due to possible impacts on the remaining customers in the G.S.S. class, we are reluctant to implement significant rate design changes without more complete information. Therefore, we find that for the interim case, the existing rate design for the G.S.S. class shall continue and the rate levels increased proportionally. We also direct KCPL to gather demand data on the remaining G.S.S. customers to be available for the permanent case.

10. We have considered KCPL's contention that its 80 percent ratchet and 3.25 cents per KWH tail block encourages off peak usage and discourages an increase in the summer peak relative to staff's proposed 70 percent ratchet and higher energy rate in the tail block. However, as indicated earlier, lowering most customers' winter billing demand (lowering ratchet to 70%) will shift more KWH to the lower energy tail blocks, thus providing an incentive to increase non summer months' usage.

11. We direct that general service large tariff be restructured using a 70 percent ratchet but that the tail energy block rate remain unchanged. We believe no change is appropriate in the tail block rate at this time. In addition, the company's proposal to reduce winter demand readings 30 percent will be adopted. We believe that this rate design is most reasonable for general service large customers at this time.

Primary Service, Frozen and Large

1. KCPL requested no charge in the primary service *frozen* rate structure, other than a proportionate increase. However, KCPL proposed to restructure the primary service *large* rate schedule in the same manner as its proposed general service tariff. Staff redesigned both the primary service frozen and the primary service large schedules reflecting the same philosophy used in designing staff's proposed general service large tariff.

2. We find that primary service customers (both the frozen class and the large class) consist of high use, relatively high load factor customers. We have modified staff's proposal regarding the structure of the general service large tariff, and accordingly we adopt a similar modified proposal for the primary classes.

Residential Service

1. KCPL proposes no change in the residential rate structure. Presently, all residential class customer charges are the same level, except the residential demand service (RDS) which has a slightly lower customer charge. Staff witness Ford testified that a cost based customer charge for the residential customer class would be $7.13 per month, including meter costs and expenses for meter reading and customer billing. Customer charges would need to be increased 45 percent to reach this level, thus Mr. Ford proposed the same percent increase in these charges as the residential class would receive. He also recommended that the RDS customer charge be raised to the same level as the other residential class customer charges. KCPL witness Giles recommended a lower customer charge and lower energy rate for the RDS schedule. He testified this rate was designed so that a customer that does change his pattern of usage should be indifferent to the choice of RDS or residential rate schedule. (TR. Vol. A-3, p. 608).

2. We consider a proportionate increase in the residential class customer charge appropriate at this time given the impact of a higher increase. We also direct that the RDS customer charge be raised to the same level as the other residential class customer charges. All other rate components in the residential class except the electric space heat rate shall be increased proportionately.

Street Lighting

KCPL proposes that high pressure sodium lamps (HPS) and mercury vapor lamps (MV) be comparably priced based on lumens. Private area lights are structured in the same manner. KCPL increased this rate structure 10 percent for the private area lights. All other lighting class rates were increased proportionally. Staff did not oppose KCPL's recommended restructuring with one exception: staff proposed twin lamps be calculated at one and one half the single lamp rate. Staff reasoned that only one line and pole is required to serve the lamps, thus it does not cost twice as much to serve a two lamp pole as a one lamp pole. We adopt KCPL's proposed restructuring with the one exception proposed by staff.

Rate Area Combination

KCPL proposes to eliminate rate differentials between areas 2 and 4. Most of the parts of the tariffs are identical, and the few changes that are necessary will not greatly impact the customers. Therefore we adopt KCPL's proposal to combine rate areas 2 and 4 into a single tariff.

Spread of Increase

KCPL proposed an approximate equal percentage increase each rate schedule with the exception of General Service-Small, General Service-Large, Primary Service, Area Light, Street Light and Tariff Signal schedules. As

shown in Mr. Marker's appendix to his testimony, all classes are showing positive rates of return using either a 4 C.P. or a 12 C.P. allocation methodology. The lighting class shows a significantly higher rate of return under either methodology. Staff did not take issue with the spread of the increase as proposed by KCPL. We find the methodology as proposed by KCPL, shall be used in spreading the revenue increase to the various customer classes.

Other Tariffs

KCPL has various other rate schedules that were not specifically mentioned above. KCPL proposed no change in the rate structure of these tariffs and proposed a proportionate increase for these tariffs. Staff did not oppose these proposals. We adopt KCPL's proposals in this area.

ECA Tariff

KCPL proposed to reduce the ECA base from 1.772 cents per KWH to 1.409 cents per KWH to reflect the change in fuel costs as a result of Wolf Creek. Staff analyzed the proposed ECA base and found it to be mathematically correct. Therefore, an ECA base of 1.409 cents will be adopted. KCPL did not propose any revisions to the ECA tariff with respect to line loss limits, thermal efficiency and fuel mix limits with alternative fuel ratios as a result of Wolf Creek becoming operational. These changes were necessary, and we direct KCPL to reflect the above mentioned changes in the compliance filing. Since there was limited evidence in the record to support the ECA tariff revisions, they will be approved subject to a hearing in order to give all Wolf Creek participants an opportunity to present their proposals.

Rural/Urban Rate Differential

The Commission has some concern regarding the present poor economic situation of the farmers and how that may

be exacerbated by the rural residential rate which is .81 cents per KWH higher than the urban residential rate. We believe that this rate differential should be reduced .40 cents per KWH in view of the fact that most residential rates are at the same level. Further, we advise KCPL and the staff that this issue should be evaluated and addressed in the permanent rate base.

IT IS, THEREFORE, BY THE COMMISSION ORDERED THAT:

1. Applicant is a public utility subject to the jurisdiction of this Commission under K.S.A. 66-117, which empowers the Commission to permit and authorize changes in Applicant's rates, charges and conditions of providing retail sale of electricity;

2. Applicant's existing rates for its electric service applicable to its Kansas jurisdictional operations will not permit applicant to earn a fair and reasonable return on its investment devoted to such service;

3. Each specific finding of fact made above is hereby adopted as an ultimate finding and conclusion of law by this Commission;

4. KCPL's application is hereby granted in part and denied in part, and the Commission authorizes and orders applicant to file rates and tariffs to produce additional gross revenue in the amount of $25,103,000, as calculated in the Appendix attached to this order, in accordance with the findings of the Commission;

5. Rates resulting from authorized revisions, as herein directed, will be fair, just, reasonable and sufficient and will not be unduly discriminatory or unduly preferential so that the same may be accepted upon their filing without formal objection by staff: said authorized new rates and charges shall be effective on sales rendered on or after approval by the Commission of the revised tariffs.

6. Applicant is further ordered to comply with all the Commission's directives and orders set forth herein.

Dated: September 27, 1985

Lennen, Chmn.; Wright, Com.; Henley, Com.

/s/ Judith McConnell
JUDITH MCCONNELL
Executive Secretary

LCD:rh

APPENDIX A

June 4, 1985
Wichita, Kansas
9:00 A.M.

Laurence Holmes
R. S. Townsley
Donna Hinderliter
Bill Fox
Joel Heller
Lester E. Davis
Ralph Nutter
W. W. Graber
Rosie Teague
Margaret W. Bangs
Margaret J. Miller
Brian Christinat
M. J. Wall
Jenny Ablah
Kathryn Brito
Lois Tripplett
Lois Koon
Ralph Krehbiel
Charles Schrufer
Lee Good
Mark Zavala
William A. Garrison
Mel Brito
Iona Nutter
Sam Arnholz
Albert Rollman
Karen Fitzgerald Jacobs

June 4, 1985
Wichita, Kansas
1:00 P.M.

James A. Ray
Mary Margaret Rogers
Arnold Fisher
Nancy Winters
Sherman Whitley
Kirk Riley
Lyle English
Duane Sanders
Roberta Mildfelt
Anthony Tarauglla
Vern Pratt
Theo Cribbs
George Iseminger
Cynthia Perry
Pat Moore
Cecil Spurgeon
Andrea Potts
Beverly Brown
Harold Plenart
Marj Kraus
Lowell Klein

June 4, 1985
Wichita, Kansas
7:00 P.M.

Andy Allen
Evelyn Hendrickson
Richard Harper
Charles Bayouth, Sr.
Samuel Ellerman
Pat Lehman
Jeannette Ewat
Richard Harris
Teri Fresna
Alan Eshbaugh
John Livengood
Esther Francis
Willard Shopenberger
Terry Garrison
Jacque LeNai
Marla Pruett
Marlene Denny
Jerry McCarter
Eric Fowler
J. Mart Cockerill
Leroy Lehman
Greta Crosby
Darrell Glamann, Sr.
Arthur Gould
Howard Lane
Richard Cowdry
Amilia Newberry
Junior A. Weller

June 5, 1985
Wichita, Kansas
9:00 A.M.

Edmund Lorenz
Neila Nelson
Alvin McClelland
Carlene Farthing
Bob Laughlin
Ben Linn
Rick Bowden
U. A. Lawrence
Lawrence Hill
Ray Casados
John Harnburda
William Stephan
James Donnell
Dale Smith
Vernon Rice
Elvest Lehl
Lucile Cook
George Collier
C. Duane Pieplow
Lloyd Striplin
James Ard
Fred Godesky
Euel White
Jess Windsor
W. C. Helderman
Robert Crosby
Paul Miller
Charles Kerschen
Aileen Ward
Richard Walter
Jack Kice

June 5, 1985
Wichita, Kansas
1:00 P.M.

Rogert Grund
Greg Ferris
Ms. Hagins
Deborah Spence
Walter Groves
Diane Valadez
Alec Odeuseff
Myra White
James Clark
Robert Handley
Amber Mills
Mike Sawyer
Marie Groebl
Randy Hershey
Reverend D. Miller
Dick Merkel
George Gird
Joyce Hall
Robert McElroy
Atha Moore
Herman Korte
Orin Lewis
Collette Ayers
Ernie Clark
George Bayouth
Bill Burns
Mary Abbott-Mills
Nancy Moyer
Don Travis
Jerry Baker
Vee Williams
Henry Stockwell
John Mitchell
Math Loehr
Leonard Cook
Danny Mayes
Walter Berry
Tom Lawless
Daryl Gomann
Marvin Cupps
Mrs. Darel Manning
Seybrun Lahrom
Glendora Johnson
Betty Plummer
James M. Saiz
Vincent Moore

June 5, 1985
Wichita, Kansas
7:00 P.M.

Mike Tuttle
Sylvia Wilcox
Dennis Fairbanks
Powell Yew
Gladys Newman
Barbara Olmsted
Peggy Twombly
F. E. Johnson
Camilla Swart
Carl R. Wilmoth
Steve Dechant
Ron Norgren
Charles Pike
Chuck Mills
Chuck Scarbrough
Shannon Sherwood
Frank Kerns
Don Vaughn
Michael Moore
Wayne Cupps
Eric Dyer
Lucy Baker
Theresa Prockish
Roy Philips
Eric Wolfe
James Bell
Gary Knepp
Richard Aldrich

Michael Lynn
Debby Moore
Alice Lofland
Donald Snyder
George R. Barte, Jr.
Donald Krummer
Retta Christey
Cindy Chalker
Thomas Kneil
Kelly Wendeln
David Bayouth
Elizabeth Illidge
Dorothy Foster
Alice Seaman
Edna Johnson
Pam Robinson
Carl Houchin
Margaret Knepper
Carol-Lyn Gaudio
Paul Becker
Judy Cameron
Martin Cook
A. J. Hawkins
Phillip Dosien
Luther Steele
Noon Nulan
Erwin Duerksen
Jerry Lawrence

June 6, 1985
Lindsborg, Kansas
1:00 P.M.

Timothy Clanton
Eugene K. Nelson
Nadine Griffin
Sue Christensen
Paul Krumm
Weeden Nichols
Margaret Ayers

Walter Pickett
Enid Stover
Paul F. Burmeister
LeLain Lorenzen
James F. Schmidt
Gerald F. Ridenour
Irva Brandt

June 6, 1985
Newton, Kansas
7:30 P.M.

James D. Rutschman	Christina Jost
Ron Ewart	Frank Little
Alvin P. Voth	Ralph Garrison
Harold Schultz	Gret Bartel
Wilbur Robinson	Lou Jenson
M. R. Schroeder	Maynard Janzen
Duane Carmichael	Elmer Schmidt
Mrs. R. C. Classen	Stan Adamson
Billy Miller	James Nichols
Joyce DuFriend	Lloyd D. Pitchford
Keith Wiens	Mary J. Lehman
Paul Vaughn	Arnold E. Funk
Herb Reimere	Loren D. Reusser
Sylvia Cowley	Raymond Brant

June 7, 1985
Meade, Kansas
1:00 P.M.

Roy Seybert	Dean Borth
Larry Beard	Don Dowell
Marcia Eads	Karen Cottrell
Gred Borth	Melvin Neufeld
Jay Kirk Cottrel	Dave Geist
Duane Eads	Gloria McKinney
Frances Gates	Ray Charles

June 7, 1985
ElDorado, Kansas
7:00 P.M.

Jarett Molen	A. Martin Millard
Dana McCoy	John Cameron
Mac Burnham	W. L. Reeves
Joe Marcum	Joe Taggart
David Wilson	Mike Tuttle
Robert M. Green	R. A. Voisin
Max Corbin	Ted Baker
Wilber C. Reed	Harlan Seeber
Eldon Phares	Gene White
Judy Lawrence	Frank W. Strait
Fred Silver	Linda Richards
Maryon Payne	Tom Harms
Paul A. Boyer	LeRoy Hildreth
George Lawson	Jean Kanausman
Margie Hayes	M. C. Canfield
Paul Seely, Jr.	Eldon Phares
Robert McCord	

June 10, 1985
Topeka, Kansas
7:00 P.M.

Carl Jarrett
Phil Kassebaum
Ralph Turner
Paul Johnson

June 11, 1985
Paola, Kansas
7:00 P.M.

Virgil Thomas
Glen J. Underwood
Mrs. German
William C. Lawrence
Marvin Barkis
Mr. Doudna
Father Robert Pol
Edward L. Samyn
Dave Slyter
Harold Hendrickson
William Dokos
Darold J. Hendrickson
Mr. Kern

June 12, 1985
Pittsburg, Kansas
7:00 P.M.

Robert Lyerla
Albert Kozjeb
Renee Willingham
John Kozuh
Jim Engler
Lynda Pinegar
Chuck Kallaus
Ralph Wright
Sam Roper
John McNeill
Rod Dutton
Morris Stevens
Augusta Rua
Leo Merando
Edward Gallup
Bob Rinehart
Dick Lipka
Flossie Perkins
Lanthon Camblin
Ramiro Alvarez
Adal Bartletti
G. A. Oehme
Jim Loeffler, Jr.
Robert Moore
Patrick Knapp
Sherry Dennis
Dave Louiselle
Vince Scimeca
John Hannah
Winona Smith
Don Ward
Dick Loffswold
Rev. Conrad Ide
Wendell Burg
George W. Clark
Elmer Smith
Rick Lindsbog
M. J. Hefferman
James Armstrong, M.D.
Don Prettyman
Joni Raffel
Julie Bartletti
Steve Bitner
James Keeyan
Cindy Pucci
Jonas Ascauin
M. Lee Caldwell
Charles Dugone
Lou Davies
Ray Green
Thomas J. LeClere
Mari Peterson
Randall Palmer
Tom Boone
Gladys Thornburg
Jim Call
Larry Vanderpool
Bertha Dechairo
Charles Sesher
James Ascanio
Sandra Matfield
Joe Raffel
Paul Gravemann

June 13, 1985
Overland Park, Kansas
9:00 A.M.

Robert Runnels
Sally Farenthold
John Eilert
Bonnie Lankford
Ed Lackman
Mary Stewart
Robert Buenning
Diane Teglmeir
Hugh Bellas

June 13, 1985
Overland Park, Kansas
1:00 P.M.

Ed Eilert
A. E. Martens
Ray Miller
Olin Church
Stephen Fracul
Richard Wilms
Harold Davidson
Gene Haun
Walter Gates

June 13, 1985
Overland Park, Kansas
7:00 P.M.

Robert VanCrum
Genr Amos
Neil Rimington
Wayne Ricketts
Wilma McAmaw
Tom Caralijo
Claire Ewert
Dr. Stacy Ollar
Steven Eberlein
Mr. Thomas
Anne Nees
Mrs. Hall
Clarence Arndt
Bill Russell
Ed Stevenson
Rev. Dale Parson
Josie Riner
Al Frisby
James Firth
Richard Kaufman
Ron Rioner
Nady Currier
Floyd Lytle
Kal Makela
William Clark
Chris Martin
Roger Thomas
Rep. Vince Snowbarger
Mr. Holtzman

June 18, 1985
Iola, Kansas
7:00 P.M.

Harold Williams
Solomon Evans
Eugene Leedy
Mary Ellen Salava
Herbert Smith
John Noonan
Art Solomon
Richard Prother
James Walters
J. B. King
Russell Otto
Albert Winn

June 19, 1985
Independence, Kansas
7:00 P.M.

Frank McCabe
James Gilmore
John Barnes
Lawrence Stanley
Vernon Wint
Dr. William Hall
Robert Boyer
A. P. Wildgrube
Scott Smith
Terry Brown
James Bryan
Charles Daneke
Lucinda Sharman
Boyd King
Jean Smith
David Maugane
Iuan Fail
Helen Wildgrube
Ida Schafer
N. Cutshell
Earl Mundy
Carl Clark
Orville Austin
John Vermillion
Joe Smith
Gary Davidson
Kathy Travis
Warren Satchez
Mollie Stewart

June 20, 1985
Beloit, Kansas
7:00 P.M.

Gene Meitler
Jim Bigham
Vivian Almon
Robert L. Brown
Garland Price
Tom Hofts
Max Oharro
Jim Gouldie
Kenneth J. Maginley
Roger Nelson
Wayne Pachta Cubaks
Clyde Thomas
Raymond James (C&W)

APPENDIX B

Date	Tr. Vol.	Witness	Sponsoring Party	Issue	Rebutting
5-13	1	Huston	KGE/KCPL	W.C. Management and Cost Prudence	
5-14	2	Huston	KGE/KCPL	W.C. Management and Cost Prudence	
5-15	3	Huston	KGE/KCPL	W.C. Management and Cost Prudence	
5-16	4	Huston	KGE/KCPL	W.C. Management and Cost Prudence	
5-17	5	Aikman	KGE/KCPL	W.C. Depreciation	
-		LaGuardia	KGE/KCPL	W.C. Decommissioning Expense	
-		Brown	KGE/KCPL	W.C. O&M	
5-20	6	Hagan	KGE/KCPL	Nuclear Fuel Expense Licensing Status	
-		Roen	KGE	W.C. History/Mgmt. Prudence	
5-21	7	Roen	KGE	W.C. History/Mgmt. Prudence	
5-22	8	Roen	KGE	W.C. History/Mgmt. Prudence	
-		Andrews	KGE	Industry Comparisons	

Date	Tr. Vol.	Witness	Sponsoring Party	Issue	Rebutting
5-23	9	Andrews	KGE	Industry Comparisons	
-		Cadman	KGE	Management Prudence	
5-24	10	Cadman	KGE	Management Prudence	
5-25	11	Cadman	KGE	Management Prudence	
-		Ferraro	KGE	Economic Impact	
5-28	12	Lucas	KGE	KGE System Operation	
-		Gayoso	KGE	Decommissioning Cost Recovery	
-		Branca	KCPL	W.C. at Wholesale	
-		Crawford	KCPL	Nuclear Fuel and Waste Disposal	
-		Peck	KCPL	KCPL's W.C. Audits	
-		Liberda	KCPL	Decommissioning Cost Recovery	
-		Morrow	KCPL	Nuclear Insurance	
5-29	13	Doyle	KCPL	Management Prudence	
5-30	14	McPhee	KCPL	Project History Management Prudence	
-		Evans	KCPL	System Operation with W.C.	
5-31	15	Evans	KCPL	System Operation with W.C.	
-		Limmer	KCPL	Capacity Reserves	

-		Cagnetta	KCPL	Unit Accreditation
6-1	16	Sullivan	KCPL	Rate Comparisons
-		Knodel	KCPL	Forecasting
-		Daicoff	KCPL	Economic Impact
6-10	17	Flaherty	Staff	Project Prudence
-		Mitchell	Staff	Project Prudence
6-11	18	Mitchell	Staff	Project Prudence
-		Yates	Staff	W.C. O&M
-		Mosher	Staff	W.C. Depreciation Rate
-		Ponce deLeon	Staff	Schedule and Direct Labor Disallowance
6-12	19	Ponce deLeon	Staff	Schedule, and Direct Labor Disallowance
-		Mitchell	Staff	Project Prudence
6-14	20	Ponce deLeon	Staff	Schedule, and Direct Labor Disallowance
6-15	21	Ponce deLeon	Staff	Schedule, and Direct Labor Disallowance
-		Nichols	Staff	Forecasting
6-17	22	Nichols	Staff	Forecasting
-		Talbot	Staff	Decommissioning Cost and Cost Recovery
6-18	23	Rosen	Staff	W.C. Cancellation, Economic Benefit
6-19	24	Rosen	Staff	W.C. Cancellation, Economic Benefit

Date	Tr. Vol.	Witness	Sponsoring Party	Issue	Rebutting
6-20	25	Rosen	Staff	W.C. Cancellation, Economic Benefit	
6-21	26	Eaton	E.S.C.	Forecasting	
-		Sturgeon	E.S.C.	Need for Power, Prudence	
6-22	27	Phillips	KGE/KCPL	Regulatory Standards	Rosen Sturgeon
-		Fitzpatrick	KGE/KCPL	W.C. Cancellation, Economic Benefit, Forecasting	Rosen, Nichols, Eaton
6-24	28	Limmer	KGE/KCPL	Capacity Reserve Margin	Rosen
-		Fitzpatrick	KGE/KCPL	W.C. Cancellation Economic Benefit Forecasting	Rosen, Nichols, Eaton
6-25	29	Meyers	KGE/KCPL	Capital Additions	Rosen
-		Roen	KGE	W.C. Cancellation	Rosen
-		Backus	KGE	W.C. Cancellation	Rosen
6-26	30	LaGuardia	KGE/KCPL	Decommissioning Expense	Talbot Rosen
-		Brown	KGE/KCPL	Project Performance, Management, Preplanning and Industry Comparisons	Touche Ross
-		Springer	KGE/KCPL	Schedule	Ponce deLeon
-		Petrick	KGE/KCPL	SNUPPS/NPI	Touche Ross

6-27	31	Huston	KGE/KCPL	Schedule	Ponce deLeon Touche Ross
-		Van Nort	KGE/KCPL	Daniel Personnel, Quality	Touche Ross
6-28	32	Fairchild	KGE/KCPL	Industry Comparison, Economy of Scale	Rosen
-		Ferraro	KGE	Industry Comparisons of Cost and Schedule	Rosen Ponce deLeon
-		Wadsworth	KGE	(excluded)	—
6-29	33	Linderman	KGE/KCPL	Direct Labor Cost	Ponce deLeon
7-1	34	Komonoff	ALERT	W.C. Cancellation, Prudence	
-		Wass	KGE	Management Prudence '80 CMP Report	Touche Ross
7-2	35	Wass	KGE	Management Prudence '80 CMP Report	Touch Ross
-		Fouts	KGE/KCPL	Direct Labor Costs Construction Management Prudence	Ponce deLeon Touche Ross
7-3	36	Fouts	KGE/KCPL	Direct Labor Costs Construction Management Prudence	Ponce deLeon Touche Ross
-		Marks	KCPL	Forecasting	Nichols
-		Branca	KCPL	W.C. Cancellation	Rosen
-		Knodel	KCPL	Forecasting	Nichols Eaton

Date	Tr. Vol.	Witness	Sponsoring Party	Issue	Rebutting
7-6	37	DeStefano	KCPL	Schedule	Rosen
-		Rodabaugh	KCPL	Nuclear Fuel Expense	
-		Beaudoin	KCPL	Rate of Return	
7-8	38	Evans	KCPL	Cancellation, System Operation with Wolf Creek	Rosen Sturgeon
7-19	39	Linderman	KG&E	Reconciliation	Ponce deLeon
7-8	A-2	Rasmussen	KCPL	Phase In	
-		Pendleton	KCPL	Phase In	
-		Johnson	KCPL	Environmental	
-		Wasson	KCPL	ECA Items, M&S Inventory	
-		Miller	KCPL	Ice Storm Expense	
-		Samuels (Stip.)	KCPL	Fuel and Interchange Budgets	
-		Blunk (Stip.)	KCPL	Forecast Fossil Fuel Prices	
-		Chronister (Stip.)	KCPL	EPRI	
7-9	A-3	Landes	KCPL	EEI	
-		Bauer	KCPL	EEI	
-		Levesque	KCPL	Corporate Planning Process and Budgeting	

-		Yetter	KCPL	Budget and Reconciliation	
-		Sullivan	KCPL	Allocations	
-		Knodel	KCPL	Allocations, Customer Class Cost of Service, Rate Design (Space Heating)	
-		Giles	KCPL	Rate Design, (Street Lights, Area Lights, RDS), Revenues	
-		Cattron	KCPL	Test Year, Accounting Adjustments	
-		Yates	Staff	Budget	
-		McCoy (Stip.)	KCPL	Fossil Fuel Inventory	
-		Kite (Stip.)	KCPL	Allocations	
-		Proctor	Staff	Accounting Adjustments	
7-10	A-4	Sharpe (Direct & Rebut.)	KCPL	Taxes Interest Sync.	Proctor
-		LaCapra	KCPL	Allocations	
-		Proctor	Staff	Accounting Adjustments	
-		York	Staff	Rate of Return	
-		Marker	Staff	Allocations	
-		Ford	Staff	Rate Design	
-		Cobler	A.G.	Rate Impact	

Date	Tr. Vol.	Witness	Sponsoring Party	Issue	Rebutting
-		Armstrong	Staff	FASB 71	
-		Smith (Stip.)	KCPL	Non-W.C. Management Prudence	
7-11	A-5	Talbot	Staff	Financial Impact on KCPL	
-		Beaudoin	KCPL	Rate of Return, Financial Impact	York Talbot
-		S. Johnson	KPL	Rate Design (Heating Rate)	
-		Levesque	KCPL	Forecast Test Year, Budget, Interim Rates	Yates
-		Yetter	KCPL	H 1-4 Common Costs, Payroll	Proctor
-		Cattron	KCPL	W.C. Ad Valorem Taxes, H 1-4 Common Facilities and Structures	Proctor
-		Sullivan	KCPL	Allocations	Marker
-		Blunk (Stip.)	KCPL	Modeling, Forecast Fuel Prices	Proctor
7-12	A-6	Tolley	Jo.Co.	Economic Impact	
-		Pflaum	JoCo.	Phase-In	
-		Rasmussen	KCPL	Phase-In	Pflaum, Armstrong Talbot

-		Pendleton	KCPL	Phase-In	Armstrong, Pflaum
-		Knodel	KCPL	Forecasting, Rate Design (Space Heating Rate), Statistical Modeling, "Price Path" for Phase-In	Tolley Ford S. Johnson Proctor, Pflaum
7-15	A-7	Lanzalotta	Jo.Co.	Excess Capacity	
-		Russell	Jo.Co.	Operating Problems Due to Excess Capacity, Off-System Sales Treatment in BCA, Target Capacity Factor, Mandatory Unit Commitment Coordination	
-		Turner (Stip.)	Electro	Rate Impact	
7-15	A-7	Knudson	Thermo	Rate Impact, Rate Design	
-		Pauley	Staff	Unit Performance Commitments, Retirements and Dispatch	
-		Giles	KCPL	GS Rate Schedules, W.C. Target Capacity Factor for BCA	Ford Russell

Date	Tr. Vol.	Witness	Sponsoring Party	Issue	Rebutting
-		Evans	KCPL	Unit Performance, H 1-4 and GAS, System Operation with W.C., Excess Capacity, W.C. Target Capacity Factor	Pauley, Lanzalotta, Russell
-		Trask	KCPL	H 1-4 and GAS, System Operation After W.C., Unit Maintenance Scheduling, Common Facilities	Lanzalotta, Russell, Pauley Proctor
-		Branca	KCPL	Excess Capacity, Unit Accreditation, Voltage Support	Russell Lanzalotta Pauley
-		Dermann	KCPL	Load Control Program (Excess Capacity)	Lanzalotta
-		Limmer (Stip.)	KCPL	Capacity Reserve	Lanzalotta

APPENDIX C

KANSAS CITY POWER AND LIGHT CO.

Docket No. 142,099-U

Kansas Retail Revenue Deficiency

	$000's
Rate Base as Adopted	409,958
Overall Return on Rate Base	11.236%
	46,063
Return on Load Control Equipment	7
Net Operating Income Required	46,070
Net Operating Income Adjusted	29,099
Net Operating Income Deficiency	16,971
Income Tax Factor	.50355
Revenue Deficiency	33,703
Nuclear Fuel Savings	8,600
Revenue Deficiency in Current Rates	25,103

APPENDIX C

KANSAS CITY POWER AND LIGHT CO.

Docket No. 142,099-U

Kansas Retail Electric Rate Base

	($000's)
Rate Base per Applicant	724,303
Staff Adjustments accepted by Commission:	
No. 1 Staff Allocation Change	(30,710)
No. 2 Customer Related Capital	52,879
No. 3 PMA-Nuclear Plant	(39,606)
No. 4 Hawthorn Retirement	0
No. 5 Nuclear Plant Depreciation Rate Change	340
No. 6 Montrose Transmission Plant	(203)
No. 8 LaCygne Turbine Plant	(168)
No. 9 Net Cash Working Capital	4,055
Rate Base with Staff Adjustments	710,890
Commission Adjustments to Rate Base	
No. 10 Excess Capacity	(228,060)
No. 11 Economic Revaluation of Nuclear Plant	(72,872)
Rate Based as Adopted	409,958

APPENDIX C

KANSAS CITY POWER AND LIGHT CO.

Docket No. 142,099-U

Kansas Retail Operating Income

	($000's)
Operating Income per Applicant	33,732
Staff Adjustments Accepted by Commission:	
No. 1 Staff Allocation Change	945
No. 2 Wolf Creek Expenses	89
No. 3 Decommissioning Costs	(253)
No. 4 Nuclear Plant Depreciation Rate Change	726
No. 5 PMA-Depreciation on Excluded Nuclear Plant	1,525
No. 6 Property Tax on PMA Exclusion	252
No. 7 Operation and Maintenance for Hawthorn Plant Requirements	1,214
No. 8 Depreciation for Excluded Montrose Plant	4
No. 9 Labor Adjustment	1,520
No. 10 Adjust Current and Deferred Income Taxes to Reflect the Effect of Other Staff Adjustment to Operations	(10,655)
Total Staff Adjustments	(4,633)
Operating Income as Adopted	29,099

APPENDIX G

Order Denying Rehearing (KCPL)

THE STATE CORPORATION COMMISSION OF THE STATE OF KANSAS

Before Commissioners: Michael Lennen, Chairman;
Margalee Wright and
Keith R. Henley

Docket No. 120,924-U

IN THE MATTER OF A GENERAL INVESTIGATION BY THE COMMISSION OF THE PROJECTED COSTS AND RELATED MATTERS OF THE WOLF CREEK NUCLEAR GENERATION FACILITY AT BURLINGTON, KANSAS

Docket No. 142,099-U
84-KCPE-198-R

IN THE MATTER OF THE APPLICATION OF KANSAS CITY POWER & LIGHT COMPANY REQUESTING PROPOSED CHANGES IN ITS CHARGES FOR ELECTRIC SERVICE

ORDER DENYING REHEARING

Now, the above-captioned matters come before the State Corporation Commission of the State of Kansas upon the Application for Rehearing filed by Kansas City Power & Light Company (KCPL), and the Application of the Johnson County Joint Intervenors for rehearing.

The Applications for Rehearing were scheduled for oral argument along with the Applications for Rehearing of the other owners and intervenors in the Wolf Creek related dockets. Applicant, KG&E, appeared by James

Haines and Jonathan Heller, Wichita, Kansas. Applicant, KCPL, appeared by Warren B. Wood, Overland Park, Kansas, and Lowell L. Smithson, Spencer, Fane, Britt and Browne, Kansas City, Missouri. Applicant, KEPCo, appeared by Clifford L. Bertholf, and Phillip Kassebaum, Wichita, Kansas. Applicant, Hospital and Industrial Intervenors, appeared by Thomas M. Van Cleave, Jr., McAnany, Van Cleave & Phillips, Prairie Village, Kansas, and Robert C. Johnson, and George Pond, Peper, Martin, Jensen, Maichel and Hetlage, St. Louis, Missouri. Applicant, Vulcan Materials Company, Chemical Division, appeared by Milo M. Unruh, Sr. and Milo M. Unruh, Jr., Arn, Mullins, Unruh, Kuhn & Wilson, Wichita, Kansas. Intervenor, Alliance for Liveable Electric Rates Today, ALERT, appeared by Robert V. Eye, Irigonegaray, Eye & Florez, Topeka, Kansas. Intervenor, Mary Margaret Rogers, appeared by Patrick H. Donahue and William Riggins, Kansas Legal Services, Topeka, Kansas. The Honorable Robert T. Stephan, Attorney General of the State of Kansas, appeared by Carl M. Anderson, Assistant Attorney General, Topeka, Kansas. The Commission staff and the public generally were represented by Brian J. Moline, General Counsel, Robert M. Fillmore, Deputy General Counsel, LuAnn C. Dixon, Assistant General Counsel, John Jay Rosacker, Assistant General Counsel, and Donald A. Low, Director of Utilities, Topeka, Kansas.

The Commission, being fully advised in the premises and having given due consideration to the oral arguments of the parties, finds and concludes as follows:

1. The final order was issued herein on September 27, 1985, pursuant to K.S.A. 66-117. That order was fully responsive to KCPL's application for changes in its charges for electric service, filed November 8, 1984 and amended January 31, 1985.

2. The Commission received KCPL's Application for Rehearing on October 7, 1985. The Commission also

received on October 7, 1985, the application of the Johnson County Joint Intervenors for rehearing. Both applications were timely filed in accordance with K.S.A. 66-118 (b).

3. By order issued October 17, 1985, the Commission required oral argument on certain issues with no time limit, and permitted oral argument on the remainder of the issues raised in the Applications for Rehearing subject to a 20 minute time limitation. In that order, the Commission also continued the Applications for Rehearing for 30 days from October 17, 1985, pursuant to K.S.A. 66-118b.

4. The Commission heard oral argument regarding the Applications for Rehearing on Friday, November 8, 1985, beginning at 8:30 a.m., in the Commission's Hearing Room B, Fourth Floor, State Office Building, as scheduled.

5. The Commission, after reviewing its September 27, 1985 order issued herein, finds that the order language at page 40, line 2, regarding PMA finding a 27 month difference in schedule duration to the point of fuel load, is incorrect. The Commission directs that the number "27" in that sentence be changed to read "29" pursuant to the evidence in Exhibit G-Staff-77, Schedule Report, pages 1, 50. Further, at page 103 regarding depreciation rates for Wolf Creek, that order reads "annual interim retirements of 12 percent." That phrase should read "annual interim retirements of 0.2 percent," to correspond to the testimony of witness Mosher, TR. Vol. XVIII, p. 5253, 1, 8. These corrections concern typographical errors in the Commission's order.

6. In further reviewing the record in Docket No. 120,924-U, the Commission finds that certain procedural matters must be resolved. In particular, the Commission deferred ruling on the admissibility of Exhibit G-Staff-170, a letter from Mr. Arterburn to Messrs. Fiebach,

Cadman and Koester. At this time, the Commission rules that Exhibit G-Staff-170 will not be admitted in evidence.

7. Also, on September 3, 1985, attorneys for intervenor, Mary Margaret Rogers, filed a post hearing brief accompanied by a Motion for an Enlargement of Time within which to file brief. The Commission grants this Motion and accepts the late filed brief of Mary Margaret Rogers in Docket No. 120,924-U.

8. KCPL argues that the Commission incorrectly reduced KCPL's nuclear fuel inventory when adjusting nuclear plant as excess capacity. The Commission notes that KCPL included its nuclear fuel inventory in nuclear plant investment; whereas KG&E, a joint owner of WCGS, included nuclear fuel inventory in working capital. Thus, the excess capacity adjustment to nuclear plant for KCPL excluded a proportionate amount of KCPL's nuclear fuel inventory, but the similar adjustment for KG&E had no effect on KG&E's nuclear fuel inventory. The Commission finds that no adjustment should be made to nuclear fuel inventory as part of WCGS excess capacity. We direct that KCPL refile its rates and tariffs to collect an additional $2.2 million in Kansas jurisdictional revenues to reflect this modification of our earlier order.

9. KCPL also argues that accumulated depreciation is overstated for the test year period. The Commission's order provides for entries of equal amounts to depreciation expense and accumulated depreciation. Yet plant in service for purposes of depreciation expense includes even that portion of plant determined to be excess capacity, while plant in service for purposes of accumulated depreciation should not include that portion of plant determined to be excess capacity. The Commission has considered the oral arguments on this issue and finds that the accumulated depreciation calculated pursuant to the September 27, 1985 order should be modified to reflect

the rate base approved by the Commision with adoption of the excess capacity adjustments. KCPL is directed to refile its rates and tariffs to collect an additional $892,000 in Kansas jurisdictional revenues to reflect this modification of our findings regarding accumulated depreciation.

10. The Commission has considered the arguments of counsel for KCPL that our decisions regarding excess capacity and the valuation of Wolf Creek are preempted by the Atomic Energy Act 42 USCA § 2011 et seq. because they unlawfully intrude into the federal government's exclusive concern for the safe development of nuclear power. We find these arguments contradictory to existing case law holding that the federal government's exclusive authority under the doctrine of preemption is limited to regulation of radiation hazards at nuclear power plants. In all other areas, dual federal and state regulation of public utilities is preserved. *Northern States Power Company v. State of Minnesota,* 447 F.2d 1143 (C.A. 8th Cir. 1971). *Pacific Gas & Electric Co. v. State Energy Resources Conservation and Development Commission,* 103 S.Ct. 1713 (1983).

11. The Commission allows the owners full recovery of their proposed Wolf Crek O&M expenses with the exception of the salary of one employee who is no longer there. In addition, the Commission allows a return of the plant investment found to be excess capacity. Thus, compliance with safety regulations should not be a financial problem for the owners. In addition, there is nothing in the statutes or in constitutional law that the federal government has a constitutional interest in how a utility obtains funding to comply with federal safety requirements regarding nuclear power plants. Our order does not act as a barrier to the federal objective to develop nuclear power. The federal government is concerned with the construction of safe nuclear power

plants, not with the construction of nuclear power plants at all costs.

12. KCPL's attorney has argued that our earlier order is inconsistent because we determined excess capacity for KCPL assuming a 1990 peak demand that was based on KCPL's requested price increases in Kansas and Missouri, yet we granted KCPL a lower than requested price increase in Kansas. KCPL asserts that because of the price elasticity of demand, this Commission's lower price increase will result in a higher than forecasted peak demand for KCPL. The Commission considers additional evidence regarding peak demand for 1990 to be very speculative. Our earlier order contemplates that there may be changes over the next few years in what constitutes KCPL's excess capacity. The owners of Wolf Creek may seek Commission approval to include more of Wolf Creek in rate base. The evidence in the record indicates that our projection for peak demand for the year 1990 is reasonable. We believe that KCPL's econometric model lacks the precision to measure short run changes in demand. It would be speculative to presume a substantial change in technology will occur, including housing and appliances, in the next five years of the magnitude suggested in Mr. Knodel's affidavit attached to KCPL's application for rehearing. We find from the evidence in the record that our load forecast for 1990 is reasonable, but we do not find the need to adopt the company's methodology. We affirm our earlier findings regarding KCPL's peak demand for the year 1990, as well as our finding regarding KCPL's near term excess capacity.

13. The Commission has considered counsel's arguments regarding costs disallowed due to imprudence. We have re-examined the evidence and our earlier findings, and we affirm our disallowance of $37,961,400 attributable to 1,828,262 manhours and $244,561,400 due to controllable schedule delay. We find these costs are

due to inefficiency or imprudence in the owners' management practices in the construction of Wolf Creek. This conclusion results from our analysis of the companion reports submitted by Touche Ross and PMA for the staff, as well as the owners' Management Performance Evaluation, Reconciliation Management Summary, and the testimony sponsored by Mr. Huston and Mr. Linderman. The staff reports analyzed the construction management practices and specific areas of cost overruns and schedule delay. We are not persuaded by the owners' reports regarding management performance and the reconciliation process, and the related testimony that all the construction costs were incurred prudently or efficiently. We also are not persuaded by the design change analysis sponsored by witness Huston that the owners have adequately explained the reasons for schedule extensions. On the contrary, the evidence in the record, including the reports prepared on behalf of the staff by PMA and Touche Ross and the cross-examinations of Mr. Huston and Mr. Linderman, supports our previous findings of costs disallowed due to imprudent or inefficient actions on the part of the owners.

14. Our findings regarding the cost disallowance are also consistent with the legislation in K.S.A. 66-128g (b):

> The portion of the cost of a plan or facility which exceeds 200% of the "original cost estimate" thereof shall be presumed to have been incurred due to a lack of prudence. The Commission may include any or all of the portion of cost in excess of 200% of the "original cost estimate" if the Commission finds by a preponderance of the evidence that such costs were prudently incurred.

15. We find pursuant to this standard that approximately $800,000,000 of the Wolf Creek cost is in excess of 200 percent of the original cost estimate. We cannot

find from the preponderance of the evidence in the record that all of the costs in excess of 200 percent of the definitive estimate were prudently incurred. We find that the owners failed to identify, quantify, explain or reconcile substantial increases in costs. Therefore, the owners have not met their burden imposed by the legislature of presenting substantial, competent evidence to the Commission that costs in excess of 200 percent of the original cost estimate were prudently incurred. As Mr. Linderman testified, it was not the purpose of the reconciliation process to analyze management prudence regarding construction of Wolf Creek. Furthermore, our examination of Mr. Huston's analysis and testimony regarding industry average comparisons does not lead us to the conclusion that all of the costs over 200 percent of the definitive estimate were prudently incurred. Comparison of management performance at Wolf Creek to a statistical average of several variables for other selected projects is a meaningless exercise absent evidence of management prudence at the projects being used as a standard. Such a comparison fails to prove that all of the construction costs at Wolf Creek were prudently incurred, or that management decisions at Wolf Creek were appropriate. On the other hand, examination of management performance at Wolf Creek reveals that inappropriate decisions and inefficient actions were present. We find no inconsistency in rejecting the owners' use of such industry statistics for determining overall performance, and adopting the use of an average unit rate to calculate a manhour factor in controllable schedule slippage. Unit rates for particular activities would be comparable throughout the industry. We affirm our earlier findings regarding the qualitative and quantitative analyses of Wolf Creek construction cost and schedule.

16. In its application for rehearing, KCPL made numerous contentions concerning the Commission's adop-

tion of risk sharing principles and the valuation of Wolf Creek at $1290/KW. Oral arguments were heard on the company's contentions that the Commission's order is unlawful, unreasonable and arbitrary in this regard. Among other points, the company argues that K.S.A. 66-128g, upon which the Commission relied, does not authorize consideration of economic and risk factors for valuation of rate base. The factors listed in that statute are argued to be intended only for use in making a prudence determination, after which plant investments should be valued at original cost. The company argues that since the Commission may only exercise authority delegated to it by the legislature, the valuation of Wolf Creek at less than original cost is beyond its authority and confiscatory.

17. The Commission has carefully considered its findings in light of Applicant's arguments and still believes its findings to be sound, reasonable and lawful. In our September 27, 1985 order we found that K.S.A. 66-128g "compels consideration of the economics of a plant in determining the reasonable value of a rate base addition". Although Applicant may be correct that that statute does not explicitly require consideration of the listed economic factors in determining valuation, we believe that the legislature did intend that those factors be considered in arriving at a fair and reasonable result. Furthermore, the inclusion of risks accepted by the utility as a factor in K.S.A. 66-128g, suggests some legislative recognition that utilities do accept risks for ratemaking purposes. Although that factor and eleven others may be primarily aimed at a prudence determination, we do not believe they are limited to that narrow purpose.

18. As staff noted in its argument, the Commission has broad authority under K.S.A. 66-101 to "do all things necessary and convenient for the exercise of . . . power, authority and jurisdiction" to supervise and control public utilities. The powers granted to the Commis-

sion are to be liberally construed pursuant to K.S.A. 66-141 and have been so construed by the courts. *E.g., Sunflower Pipeline Co. v. Kansas Corporation Commission*, 5 K.A.2d 715, 624 P.2d 466 (1980). This liberal construction is necessary to insure that utilities provide reasonably efficient and sufficient service pursuant to K.S.A. 66-107. Staff observes that risk sharing is not, in fact, a recent regulatory innovation, but that it has been embodied in many, if not most, actions taken by Commissions in a rate case. We believe staff is correct. It is often observed that regulation is a surrogate for competition and that the goal of regulation is to attempt to produce results similar to those which would be produced in the competitive marketplace. In our September order we noted that this analogy to the free marketplace has limitations, but certainly regulation can and does continually balance the interests of utility shareholders and ratepayers. This balancing occurs whenever a commission disallows a cost or expense, although it may actually have been incurred, because it is unreasonable to have ratepayers bear that cost or expense. Utilities, consequently, have always faced the risk that costs would be disallowed and that they would be ultimately borne by shareholders. Several specific examples illustrate that this has been recognized as a valid regulatory principle.

19. Staff noted that the Court in *Kansas Gas & Electric v. State Corporation Commission*, 218 Kan. 670, 544 P.2d 1396 (1976) quoted with approval the general principle of utility law that a utility company "must bear the burden of an unreasonable extension of its plant and the risk that portions of it prudently acquired may become obsolete, or not useful". It thus appears that assumption of risk was recognized as a valid concept by that court, at least with regard to physical excess capacity. It is, of course, that court decision which prompted passage of House Bill 2927 (K.S.A. 1984 Supp. 66-128 *et seq.*), which was apparently intended to broaden further this Commission's authority.

20. There are other traditional adjustments made by commissions which have the effect of limiting the amount of costs allowed for determining revenue requirements. For example, most commissions do not generally allow plant acquired from another utility to be included in rate base at an acquisition cost higher than original cost without a showing of benefits to ratepayers. *See e.g. Southwestern Bell Tel. Co. v. State Corporation Commission*, 192 Kan. 39, 67; 386 P.2d 515 (1963); *In Re Plateau Natural Gas Company*, 27 PUR 3d 447 (1959). Although the primary rationale for such disallowances is to prevent inflation in the value of property which was dedicated to public service at orignal historical cost, the broader purpose of interest here is to insure a reasonable and efficient valuation of property in rate base. It is obviously not economically efficient to permit an increased valuation in property simply due to a change in ownership accomplished by a purchase price in excess of original cost less depreciation.

21. Staff also cited *Sekan Electric Coop Ass'n. v. Kansas Corporation Commission* 4 K.A. 2d 477; 604 P.2d 188 (1980) in its arguments. The Court of Appeals in that case approved the use of a hypothetical capital structure quoting a treatise on utility regulation:

> It must be kept in mind, of course, that the regulatory commission does not have the actual authority to revise a utility's capital structure, per se, or to order the utility to change it into a different setup. That is a prerogative of management which cannot be superseded by the substitution of regulatory opininion-that is to say, how much debt should be incurred or common stock issued.
>
> It is solely in the area of assuming what effect a different or more desirable capital structure would have on the cost of capital, if it were adopted, that the regulatory judgment may function. As a practical matter, of course, such a hypothetical assump-

> tion of an ideal or optimum capital structure, as distinguished from that which actually exists, may have the same dollars-and-cents results, as far as the return allowance is concerned, as an actual change in the capital structure. In other words, the regulatory authority may say to the utility company, in effect: 'We find that if the debt to equity ratio were different from what it actually is, your capital costs would be lower, so therefore we will consider the cost of capital just as if the capital structure were different, in making the return allowance.'
>
> This distinction between the function of management and that of the regulator has been succinctly stated by the Maryland court of appeals in a recent decision [C.&P. Tel. Co. v. Public Service, 230 Md. 395, 187 A.2d 475 (1963)] wherein it was said that the owners and management of a utility have the right to determine what the debt-equity ratio should be, but they may not always make the ratepayers foot the bill resulting from the choice.
> 4 K.A. 2d at 480.

22. Use of a hypothetical capital structure thus appears to have been sanctioned by the Court as a means of having ratepayers pay only the costs associated with a more "desirable", "ideal", or "optimum" alternative as opposed to that "which actually exists." Our treatment of Wolf Creek, of course, is not an attempt to replicate precisely the results of an optimum situation, but merely that of a reasonable one. The Kansas court is not alone in approving the use of a hypothetical capital structure. In *Southern Bell Telephone and Telegraph Company v. Louisiana Public Service Commission*, 239 La. 175, 118 So. 2d 372, 32 PUR 3d 1 (1960), the Louisiana Supreme Court noted that the hypothetical capital structure "has been almost universally adopted in those states where there is no formula prescribed by constitutional provisions or statutes for determination of a rate base." 32

PUR 3d at 11. After citing some eighteen jurisdictions in which courts or commissions had adopted the approach, the Court quoted from a Connecticut Commission decision that:

> In common with other operating companies of the Bell System, the Southern New England Telephone Company has consistently attempted to maintain a low debt ratio. It is manifest that the realities of the federal corporation tax structure make such a low ratio an expensive luxury, which must be borne by the ratepayers. This is so because interest on debt securities is tax deductible, but dividends on stock are not so deductible. Consequently, a lower debt ratio requires higher revenues for servicing of the stock of the company. This commission recognizes the fact that debt financing requires less revenues from ratepayers than equity financing and concludes that ratepayers should not be penalized by management's decision to maintain an unduly low debt ratio.

23. These cases certainly illustrate the fact that regulatory commissions are not bound by utility management decisions when ratepayers would be unduly penalized by the results and that the commission may substitute, for ratemaking purposes, a hypothetical with more reasonable results.

24. In its argument, staff also cited several Commission decisions which held that shareholders should bear part of the costs of plants which had been cancelled or represented excess capacity. *In Re Otter Tail Power Company*, 44 PUR 4th 219 (1981); *In Re Carolina Power and Light Company*, 49 PUR 4th 188 (1982); *Pennsylvania Public Utility Commission v. Pennsylvania Power Co.*, 27 PUR 4th 426 (1978). Those Commission orders explicitly termed their decisions as adopting risk sharing principles, as have we. However, as discussed above, the Commission does not believe that the underlying concept

is new or novel. Risk sharing is simply one way of characterizing a means by which commissions fulfill their obligation to insure just and reasonable rates and sufficient and efficient service.

25. Although we conclude, therefore, that the Commission is legally empowered by its general statutory authority to adopt a risk sharing approach, we should also specifically address the company's contentions concerning K.S.A. 1984 Sup. 66-128g. As noted above, that statute was enacted as part of H.B. 2927, which was intended to broaden the Commission's authority to address excess capacity situations. Whether and how much that bill actually increased Commission authority may be arguable. It is clear, however, that that law gives an additional emphasis to economic efficiency in determining valuation of utility property. As previously noted, K.S.A. 1984 Supp. 66-128g, lists several economic factors for the Commission to consider. K.S.A. 1984 Supp. 66-128c also explicitly empowers the Commission, "in determining the reasonable value of property under K.S.A. 66-128, and amendments thereto, . . . to evaluate the *efficiency* or prudence of acquisition, construction or operating practices of that utility." (Emphasis added.) In accordance with that legislative direction, the Commission did consider economic efficiency of the Wolf Creek plant and the electric service it provides. We found that full rate base inclusion of the plant was not economically efficient and that the approach we took was necessary to insure reasonable rates. Consequently, we remain convinced that sharing of risks between ratepayers and shareholders by limiting return on a reasonable valuation of Wolf Creek is reasonable and within the Commission's authority.

26. It is interesting to note that Applicant has not suggested abuse of authority by the Commission in determining that the risk sharing principle should apply to the physical excess capacity findings as well as the economic excess findings. We found in our September order that risks were appropriately shared by not allowing a

return on both the physical and economic excess portions of Wolf Creek but allowing a return of those costs. K.S.A. 66-128c, of course, clearly allows the Commission to "exclude all or a portion" of excess capacity costs from the revenue requirements of a utility so that not only the return on those costs but also the return of those costs may be disallowed. Although such an alternative was available, the Commission believes that the approach taken is more appropriate. As reflected in the prior order, the Commission considered the concerns for fuel diversity which prompted construction of Wolf Creek in determining that return of the investment was appropriate. This, however, was premised on no return on that portion of Wolf Creek which exceeded a reasonable valuation since we believe that the risks to be shared involve both the amount and cost of capacity resulting from the generation facility.

27. The Commission's order setting the applications for rehearing for oral argument requested argument on whether the findings valuing Wolf Creek at coal plant costs were legally sufficient. The company contends that there was no support in the record to base a valuation on the cost of a coal plant. To the contrary, the method of comparing Wolf Creek costs to those of a coal plant was a basis for the owner utilities decisions to build and continue construction of Wolf Creek. For example, KGE and KCPL both performed at various times a levelized bus bar energy cost comparison for Wolf Creek and coal facilities. A series of such comparisons performed by KGE from 1976 to 1980 consisted of the levelized bus bar costs for nuclear and coal facilities for a ten year period. Although we discussed the deficiencies of the specific studies in our September order, the general concept of comparing nuclear and coal costs to determine their relative economics is sound.

28. In calculating the valuation of Wolf Creek, the Commission took an approach very similar to the levelized

bus bar analysis performed by the companies. Rather than translating the relevant costs to a figure per kilowatt hour, however, the Commission approach translated the costs into capital costs per kilowatt of capacity. Although this was not the precise methodology used by the companies, it cannot be contended that the Commission is bound to use only the exact methods contained in the testimony and exhibits. It is clear that the Commission may use its own judgment to determine a reasonable result. *See, Union Gas System, Inc. v. Kansas Corporation Commission*, 8 K.A. 2d 583, 663 P.2d 304 (1983).

29. In addition to the company studies, the record also contains the studies performed by staff witness Rosen and intervenor witness Komanoff, which were life cycle cost comparisons of nuclear and coal plants. As discussed in the September order, we chose not to rely on their specific studies due to the myriad of projections and assumptions required. It is interesting to note, however, that our approach results in a revenue requirement which falls within the range of that advocated by staff and the recommendation of witness Komanoff for inclusion in rate base of 7% of Wolf Creek. We also find it noteworthy that in this Commission's 1980 order granting a conditional certificate to KEPCo for purchase of a share of Wolf Creek, the Commission attempted to place a ceiling on the purchase price. That maximum was based on KEPCo's percentage share of the then estimated $1.5 billion Wolf Creek cost or approximately $1,300 per kilowatt. That estimate included the projected impacts of inflation on the final construction costs. That figure, we believe, compares favorably with the $1,290 figure we determined in September. Indeed, when this comparison came to our attention, we were pleased at the similarity of conclusions, considering the different contexts from which they arose. Any notion that the Commission is now engaged in "hindsight" regulation should be dispelled by the fact that the value we found reasonable for a prospective owner of Wolf Creek five years ago is remark-

ably close to the reasonable value determined in September. If it had come to the Commission's attention previously, we might well have used the $1300 per KW figure as an additional benchmark in this case. In any event, it reinforces our belief that $1290 is a reasonable figure.

30. Finally, the Commission requested argument on whether rehearing should be held to consider other methods for valuing Wolf Creek. The company opposed such a possibility. Staff argued that other methods such as avoided cost pricing or market rates could be considered which might result in even lower rates. Staff suggested, however, that this did not imply that the Commission decision was unreasonable. We agree that consideration of other approaches could result in a different result which might also be reasonable. We are, however, comfortable with our initial decision. As noted in the leading court case of *Power Comm'n v. Hope Gas Co.*, 320 U.S. 591, 602, 88 L.Ed. 333, 64 S Ct. 281 (1944), "[I]t is the result reached and not the method employed which is controlling. . . . It is not theory but the impact of the rate order which counts." We believe the result of our decision is just and reasonable.

31. One contention made by the company is that the determination of the $1,290/KW figure was not based on evidence in the record and was not set forth with mathematical precision so that no opportunity has been afforded to test the validity of the calculation. On oral argument KCPL did argue that its review of the calculations obtained from the Commission staff suggested that the generation cost savings determination was improper since it was only based on the first year of Wolf Creek operations. KCPL suggested that greater savings would occur subsequently and should be reflected in the Commission's determination.

32. Staff argued that the precise mathematical calculations need not be set out in the order any more than calculations of the other adjustments made or adopted by

the Commission. Staff also argues that it is appropriate to reflect only the current generation costs and that projecting future generation cost savings would amount to the life cycle analysis which the companies severely criticized when performed by staff witness Rosen.

33. The Commission believes that the calculations were adequately set forth in the September order but will spell out further details below. In addition, we see no significant deficiencies in the $1,150-$1,250 range of coal plant capital costs chosen from those contained in the record. As noted by staff, that range was not intended to replicate the capital costs which would have been incurred had Wolf Creek been cancelled nor what would have been the optimal capacity construction plan from the beginning. We are simply determining a reasonable value for a coal facility for purposes of setting rates for the immediate future. In this regard, the Commission is troubled that KCPL now suggests that the calculation of generation cost savings of Wolf Creek over a coal plant should include long-term projections. As noted above, our approach was adopted in part because of the companies' arguments that long-term life cycle analysis of the overall economics of Wolf Creek relative to coal facilities was too speculative. The near term approach we have taken has the benefit of not requiring the kinds of estimates KCPL now apparently suggests are desirable. We fail to see why long term estimates are appropriate for this calculation which will be subject to future adjustments and is not intended as a long-term cost analysis. Nor do we see merit in the argument that potential future adjustments in the $1,290 valuation are inadequate since they cannot apply retroactively. As noted in adopting our approach, one consideration was that of intergenerational equity. If, in fact, Wolf Creek turns out to be of greater economic value to ratepayers in the future, those future ratepayers will pay more of the costs associated with that value.

34. As noted in the September order, the starting point of our calculation was determination of the generation costs for KG&E and KCPL coal plants. As obtained from exhibit G-Staff-127, the generation costs include not only fuel expenses but also operational and maintenance expenses as reported on FERC Form 1 Reports. The same types of expenses for Wolf Creek were taken from KG&E's Application, Section B, Schedule 4 with the addition of the decommissioning costs found appropriate by the Commission elsewhere in the order. This resulted in total production related costs of $42,084,018. In order to properly match, this cost was divided by the kilowatt hour production estimate upon which the generation expenses were based. As supplied by KG&E to staff in a data request, this figure was 2,664 GWH.

35. The difference in per kwh costs for the coal facilities and Wolf Creek was then multiplied by the estimated annual Wolf Creek kilowatt hours of 6,064,986,000 based on a capacity factor of 61 percent and a 1,135 megawatt capacity as suggested in KG&E's brief. Since KG&E now claims a capacity of 1,128 MW for Wolf Creek, the 1,135 figure is conservative. The resulting generation cost savings on an annual basis were then translated into capital costs by applying an annual fixed charge rate of 22 percent based on the cost of capital, income tax effects, depreciation, property tax and insurance rates found appropriate for the companies.

36. We have reexamined the above method for calculating the generation cost savings in light of the various deficiencies alleged by the company and still find it reasonable, especially given the fact that future capital additions were not included in the Wolf Creek costs and that older vintage coal plants were included in determining the coal generation costs.

37. The Commission has also carefully considered the Application of Johnson County Joint Intervenors for Rehearing. That Application requests that the Commission reconsider its decision not to adopt certain performance

standards and incentives proposed by intervenor witnesses during the hearings. In our September order, we found that there was insufficient evidence to adopt such proposals at this time. Having heard arguments on this matter, the Commission remains of the opinion that while such standards and incentives deserve consideration, it would be best to do so after some results of actual operations of Wolf Creek are known. This application for rehearing is therefore denied.

38. The Commission, having re-examined our order issued September 27, 1985, in the above captioned dockets, and having considered the oral argument of counsel, finds no substantial error in its order, other than that denoted above. The Commission specifically reaffirms all findings of fact and conclusions of law set forth in our September 27, 1985 order referenced above, with the additions and modifications set forth herein. The Commission concludes that said order, as modified and supplemented herein, should be affirmed, and that the applications for rehearing should be denied.

IT IS, THEREFORE, BY THE COMMISSION ORDERED THAT:

The Applications for Rehearing filed by KCPL and by the Johnson County Joint Intervenors on October 7, 1985, in the above captioned dockets, are denied.

IT IS FURTHER ORDERED THAT:

The Commission's decision issued September 27, 1985 in the above captioned dockets is affirmed, as modified and supplemented herein.

Lennen, Chmn.; Wright, Com.; Henley, Com.

Dated: November 15, 1985

/s/ Judith McConnell
JUDITH MCCONNELL
Executive Secretary

LCD:pas

APPENDIX H

Order Denying Application for Rehearing (KCPL)

THE STATE CORPORATION COMMISSION
OF THE STATE OF KANSAS

Before Commissioners: Michael Lennen, Chairman;
Margalee Wright
Keith R. Henley

Docket No. 120,924-U

IN THE MATTER OF A GENERAL INVESTIGATION BY THE COMMISSION OF THE PROJECTED COSTS AND RELATED MATTERS OF THE WOLF CREEK NUCLEAR GENERATION FACILITY AT BURLINGTON, KANSAS

Docket No. 142,099-U
84-KCPE-198-R

IN THE MATTER OF THE APPLICATION OF KANSAS CITY POWER & LIGHT COMPANY REQUESTING PROPOSED CHANGES IN ITS CHARGES FOR ELECTRIC SERVICE

ORDER DENYING APPLICATION FOR REHEARING

Now, the application for rehearing filed by Kansas City Power and Light Company (KCPL) on November 22, 1985, comes on for consideration and determination by the State Corporation Commission (Commission). Upon examining the application and upon being otherwise duly informed and advised in the premises, the Commission finds and concludes as follows:

1. The final order was issued herein on September 27, 1985, pursuant to K.S.A. 66-117. That order was fully

responsive to KCPL's application for changes in its charges for electric service, filed November 8, 1984, and amended January 31, 1985.

2. The Commission received an application for rehearing from KCPL on October 7, 1985. The Commission also received on October 7, 1985, the application of the Johnson County Joint Intervenors for rehearing. Both applications were timely filed in accordance with K.S.A. 66-118(b).

3. By order issued October 17, 1985, the Commission required oral argument on certain issues with no time limit, and permitted oral argument on the remainder of the issues raised in the applications for rehearing subject to a twenty (20) minute time limitation. In that order, the Commission also continued the applications for rehearing for thirty (30) days from October 17, 1985, pursuant to K.S.A. 66-118(b).

4. The full Commission heard oral argument regarding the applications for rehearing on Friday, November 8, 1985, beginning at 8:30 a.m., in the Commission's Hearing Room B, Fourth Floor, State Office Building, as scheduled. Thereafter, on November 15, 1985, the Commission issued its Order Denying Rehearing, in which the Commission denied both the application for rehearing filed by KCPL, and the application for rehearing filed by the Johnson County Joint Intervenors. In that order, the Commission corrected several typographical errors contained in its September 27, 1985 order, ruled on certain procedural matters that remained open, and discussed several of the Applicants' arguments in detail explaining why the arguments were not persuasive and the applications were denied.

5. On November 22, 1985, KCPL filed with the Commission its verified application for rehearing of the Commission's Order Denying Rehearing, dated November 15, 1985. KCPL explained in its application that it applied

for rehearing of the Commission's November 15, 1985 Order Denying Rehearing because that "second" order supplements and modifies the September 27, 1985 order issued herein and KCPL wants to properly and adequately preserve its points for rehearing by the Commission and for judicial review. The application for rehearing filed November 22, 1985, contains the arguments made in KCPL's original application for rehearing directed toward the Commission's September 27, 1985 order with modification to reflect the Commission's November 15, 1985 order, as well as additional grounds directed toward the Commission's Order Denying Rehearing issued November 15, 1985.

6. The Commission has fully considered KCPL's application for rehearing, and has reviewed its orders issued September 27, 1985, and November 15, 1985, herein. The Commission finds no substantial error in its September 27, 1985 order, other than that noted in its November 15, 1985 order. The Commission finds no substantial error in its November 15, 1985 order. The Commission finds a typographical error in its order issued November 15, 1985, herein. At page 17, paragraph 34 of the order, reference is made to Section "B" of KG&E's application for a rate increase. Section "B" shall be changed to read Section "8".

The Commission specifically reaffirms all findings of fact and conclusions of law set forth in the September 27, 1985 order, with the additions and modifications set forth in the November 15, 1985 order. The Commission concludes that the September 27, 1985 order, as modified and supplemented in the November 15, 1985 order, should be affirmed, and that the application for rehearing should be denied.

IT IS, THEREFORE, BY THE COMMISSION ORDERED THAT:

The application for rehearing filed by KCPL on November 22, 1985, in the above-captioned dockets, is denied.

IT IS FURTHER ORDERED THAT:

The Commission's decision issued September 27, 1985 and modified and supplemented November 15, 1985, in the above-captioned dockets, is affirmed.

Lennen, Chmn.; Wright, Com., Henley, Com.

Dated: November 27, 1985

/s/ Judith McConnell
JUDITH MCCONNELL
Executive Secretary

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APPENDIX I

Notices of Appeal

IN THE SUPREME COURT
OF THE STATE OF KANSAS

No. 85-58914-AS

KANSAS GAS & ELECTRIC COMPANY,
Applicant/Appellant

v.

STATE CORPORATION COMMISSION
OF THE STATE OF KANSAS,
Respondent/Appellee

NOTICE OF APPEAL TO THE UNITED STATES SUPREME COURT BY KANSAS GAS & ELECTRIC COMPANY

Applicant/Appellant Kansas Gas & Electric Company (KG&E) hereby appeals to the United States Supreme Court from the judgment of the Kansas Supreme Court in Case No. 85-58914-AS, issued June 13, 1986 (Rehearing denied July 17, 1986), affirming the orders of the Kansas Corporation Commission (KCC) issued September 27, 1985, and November 15, 1985, in Docket Nos. 120,924-4 and 142,098-U, 84-KG&E-197-R.

KG&E gives notice that it appeals from the entire judgment of the Kansas Supreme Court on the ground that the court upheld the validity of a Kansas statute, as that term has been interpreted under 28 U.S.C. § 1257(2) and its predecessors, under a challenge that the actions of the KCC are repugnant to the Constitution and laws of the

United States. KG&E's notice of appeal is taken pursuant to 28 U.S.C. § 1257(2).

Respectfully submitted,

/s/ James Haines
RALPH FOSTER
JAMES HAINES
Post Office Box 208
Wichita, Kansas 67201
(316) 261-6573

IN THE SUPREME COURT
OF THE STATE OF KANSAS

No. 85-58917-AS

KANSAS CITY POWER & LIGHT COMPANY,
Applicant/Appellant,
v.

STATE CORPORATION COMMISSION OF THE STATE OF KANSAS, MICHAEL LENNEN, Chairman, MARGALEE WRIGHT and KEITH R. HENLEY, Commissioners and their Respective Successors in Office as the Constituent Members of the State Corporation Commission of the State of Kansas,
Respondent/Appellee.

NOTICE OF APPEAL TO THE SUPREME COURT OF THE UNITED STATES

Notice is hereby given that Kansas City Power & Light Company, the Applicant above-named, hereby appeals to the Supreme Court of the United States from the final judgment of the Supreme Court of the State of Kansas, entered in this action on June 13, 1986.

This Appeal is taken pursuant to 28 U.S.C. Section 1257(2).

Dated: October 2, 1986

/s/ Warren B. Wood
WARREN B. WOOD
Kansas City Power &
Light Company
8730 Nieman Road
Overland Park, Kansas 66214
913-888-0326
Attorney for Kansas City
Power & Light Company

APPENDIX J

Excerpts from the Kansas Public Utility Act

Excerpts From The Kansas Public Utilities Act, K.S.A. §§ 66-101, *et seq.*

66-101. Electric public utilities; power, authority and jurisdiction of state corporation commission. The commission is given full power, authority and jurisdiction to supervise and control the electric public utilities, as defined in K.S.A. 66-101a, doing business in Kansas, and is empowered to do all things necessary and convenient for the exercise of such power, authority and jurisdiction.

66-101a. Same; definitions. As used in this act:

(a) "Electric public utility" means any public utility, as defined in K.S.A. 66-104, and amendments thereto, which generates or sells electricity.

(b) "Commission" means the state corporation commission.

66-101b. Same, services, facilities, rules, classifications, regulations, rates, tolls and charges. Every electric public utility governed by this act shall be required to furnish reasonably efficient and sufficient service, joint service and facilities for the use of any and all products or services rendered, furnished, supplied or produced by such electric public utility, to establish just and reasonable rates, joint rates, tolls, charges and exactions and to make just and reasonable rules, classifications and regulations. Every unjust or unreasonably discriminatory or unduly preferential rule, regulation, classification, rate, joint rate, toll, charge or exaction is prohibited and is unlawful and void. The commission shall have the power, after notice and hearing of the interested parties, to require all electric public utilities governed by this act to establish and maintain just and reasonable joint rates

when the same are reasonably necessary in order to maintain reasonably sufficient and efficient service from such electric public utilities.

66-128. Valuation of property for rate making purposes by commission; construction work in progress. The state corporation commission shall determine the reasonable value of all or whatever fraction or percentage of the property of any common carrier or public utility governed by the provisions of this act which property is used and required to be used in its services to the public within the state of Kansas, whenever the commission deems the ascertainment of such value necessary in order to enable the commission to fix fair and reasonable rates, joint rates, tolls and charges. In making such valuations the commission may avail itself of any reports, records or other things available to the commission in the office of any national, state or municipal officer or board. For the purposes of this act, property of any public utility which has not been completed and dedicated to commercial service shall not be deemed to be used and required to be used in the public utility's service to the public, except that, any property of a public utility, the construction of which will be commenced and completed in one year or less, may be deemed to be completed and dedicated to commercial service.

66-128a. Fixing rates, joint rates, tolls and averages; authority of commission not limited by 66-128b through 66-128i. Nothing in K.S.A. 66-128b to 66-128i, inclusive, shall be construed to limit the authority of the state corporation commission to review and evaluate the efficiency or prudence of any actions, including acquisition of excess capacity, or operating practices of any public utility or common carrier for the purpose of establishing fair and reasonable rates, joint rates, tolls and charges.

66-128b. Deferral and phase-in of value of certain utility property; exclusion of finance costs, when. The commission may require a public utility to defer inclu-

sion of all or any portion of the reasonable value of property determined not currently used and required to be used and may require the phase-in of such value over any period of time and in such increments as it determines to be appropriate. If the commission requires a public utility to defer the inclusion of any portion of such reasonable value and orders a phase-in of such value, it may exclude any or all of the carrying or finance costs incurred after the date of its determination and throughout the period of any deferral or phase-in as so ordered.

66-128c. Valuation of property for rate making; evaluation of efficiency or prudence of utility; exclusion of all or a portion of costs of excess capacity, when; "excess capacity" defined; exclusion or reduction of return on costs from excess capacity. The state corporation commission, in determining the reasonable value of property under K.S.A. 66-128, and amendments thereto, shall have the power to evaluate the efficiency or prudence of acquisition, construction or operating practices of that utility. In the event the state corporation commission determines that a portion of the costs of acquisition, construction or operation were incurred due in whole or in part to a lack of efficiency or prudence, or were incurred in the acquisition or construction of excess capacity, it shall have the power and authority to exclude all or a portion of those costs from the revenue requested by the utility.

For the purpose of this act, "excess capacity" means any capacity in excess of the amount used and required to be used to provide adequate and reliable service to the public within the state of Kansas as determined by the commission. The commission may in its discretion prohibit or reduce the return on costs which were incurred in constructing, maintaining or operating excess capacity.

66-128d. Same; commission may initiate proceedings for determination; procedure. The state corporation commission may at any time and in its sole discretion,

whether or not the facility is still under construction, initiate on its own motion a proceeding to determine in advance whether the costs of such facility were reasonably or prudently incurred, or whether all or a portion of the costs of such facility are or shall be incurred in producing excess capacity under K.S.A. 66-128c. The proceeding shall be commenced by the commission giving 30 days' written notice of the setting of the hearing of such proceeding to the public utility or utilities involved, and no other motion shall be required, but the procedure, hearing and appeal rights shall otherwise be as specified in K.S.A. 66-101 *et seq.* and amendments thereto.

66-128e. Adjustment of revenue requirements of utilities by commission; exclusion of finance charges attributable to inefficiency or lack of prudence; electric utility borrowing for payment of dividends; exeption for certain utility facilities. In the event the commission finds that a portion of the costs were attributable either to investment in excess capacity which were incurred due to lack of prudence in facility planning or were incurred due to lack of prudence in plant acquisition, construction or operation, the commission shall exclude that portion of the carrying or finance charges incurred after the date of its finding, and no part of the carrying or finance costs excluded shall ever be or become part of the reasonable value of public utility property so used and required to be used. For the purposes of this section only, a finding of lack of prudence in capacity planning for a facility which in whole or in part represents excess capacity shall not be made by the commission when a siting permit authorizing the construction of the facility has been issued under K.S.A. 66-1,162 and amendments thereto prior to the passage of this act. The commission also shall not authorize the recovery as operating expense or in any other manner of the carrying or finance costs so excluded.

Nothing in this act shall limit the commission's authority to adjust revenue requirements of any public

utility if the commission determines the revenue requirement requested results in whole or in part from inefficiency or a lack of prudence.

If the commission determines that a public utility, which generates and sells electricity as its main activity, has borrowed funds in order to pay dividends and such borrowing as the result of lack of prudence, increases the revenue requirement of the utility, the commission may adjust the revenue requirement accordingly.

66-128f. Monthly financial reports by certain utilities constructing electric generating facilities. Any public utility subject to the provisions of K.S.A. 66-128b to 66-128g, inclusive, which constructs an electric generating facility and was not required to obtain an advance permit under K.S.A. 66-1,159 *et seq.* shall make and send monthly financial reports to the state corporation commission. Such reports shall include the following information, as of the date of the report, the: (a) Actual costs incurred; (b) total estimated cost of the facility; (c) percentage of the facility which is actually completed; (d) estimated date of first commercial operation; (e) copies of informational filings provided federal agencies having regulatory authority over such construction; and (f) any other information required by the commission. Such reports shall be prepared and certified in the manner and form required by the commission. Nothing in this section shall limit the commission's authority to require filing of data in any format by any regulated utility the commission deems necessary to accomplish its regulatory duties.

66-128g. Determination of "prudence" in determining reasonable value of electric generating property; factors to be considered; presumption of lack of prudence of costs in excess of 200% of "original cost estimate"; definition of "original cost estimate"; when costs exceeding 200% may be included. (a) The factors which shall be considered by the commission in making the determination of "prudence" or lack thereof in determining the

reasonable value of electric generating property, as contemplated by this act shall include without limitation the following:

(1) A comparison of the existing rates of the utility with rates that would result if the entire cost of the facility were included in the rate base for that facility;

(2) a comparison of the rates of any other utility in the state which has no ownership interest in the facility under consideration with the rates that would result if the entire cost of the facility were included in the rate base;

(3) a comparison of the final cost of the facility under consideration to the final cost of other facilities constructed within a reasonable time before or after construction of the facility under consideration;

(4) a comparison of the original cost estimates made by the owners of the facility under consideration with the final cost of such facility;

(5) the ability of the owners of the facility under consideration to sell on the competitive wholesale or other market electrical power generated by such facility if the rates for such power were determined by inclusion of the entire cost of the facility in the rate base;

(6) a comparison of any overruns in the construction cost of the facility under consideration with any cost overruns of any other electric generating facility constructed within a reasonable time before or after construction of the facility under consideration;

(7) whether the utility having an ownership interest in the facility being considered has provided a method to ensure that the cost of any decommissioning, any waste disposal or any cost of clean-up of any incident in construction or operation of such facility is to be paid by the utility;

(8) inappropriate or poor management decisions in construction or operation of the facility being considered;

(9) whether inclusion of all or any part of the cost of construction of the facility under consideration, and the resulting rates of the utility therefrom, would have an adverse economic impact upon the people of Kansas;

(10) whether the utility acted in the general public interest in management decisions in the acquisition, construction or operation of the facility;

(11) whether the utility accepted risks in the construction of the facility which were inappropriate to the general public interest to Kansas;

(12) any other fact, factor or relationship which may indicate prudence or lack thereof as that term is commonly used.

(b) The portion of the cost of a plant or facility which exceeds 200% of the "original cost estimate" thereof shall be presumed to have been incurred due to a lack of prudence. The commission may include any or all of the portion of cost in excess of 200% of the "original cost estimate" if the commission finds by a preponderance of the evidence that such costs were prudently incurred. As used in this act "original cost estimate" means:

(1) For property of an electric utility which has been constructed without obtaining an advance permit under K.S.A. 66-1,159 *et seq.*, and amendments thereto, the "definitive estimate"; and

(2) for property of an electric utility which has been constructed after obtaining an advance permit under K.S.A. 66-1,159 *et seq.*, and amendments thereto, the cost estimate made by the utility in the process of obtaining the advance permit.

66-128h. Nuclear fission electric generating facilities with excess capacity; presumption certain costs excluded when finding of no "technology or means for disposal of high-level nuclear waste" as defined in section. (a) If any portion of an electric generating facility is determined to be excess capacity and if the facility is a nuclear fission power plant, the state corporation commission shall determine whether there has been approved by the United States government through its authorized agency, a proven technology or means for the disposal of high-level nuclear waste which is available for use at or by the plant.

If the commission finds that no such technology for disposal exists, it shall be presumed that the costs of acquisition, construction or operation of the facility were incurred due to a lack of prudence and the commission shall not include such costs in the reasonable value of the public utility property.

(b) When used in this section, "technology or means for the disposal of high-level nuclear waste" means temporary on-site storage of high-level nuclear waste or an approved process for the retrieval of such waste.

66-128i. Presumption of lack of prudence if fine for safety or quality violation assessed; reduction of revenue requirements. If a fine or penalty for a safety or quality assurance violation is assessed by the nuclear regulatory commission against a public utility governed by the provisions of this act, it shall be presumed that the act or omission of the public utility causing the assessment of the fine or penalty occurred due to a lack of prudence and the commission may reduce the revenue requirements accordingly.

66-128j. Electric utilities; certain power sales; sale or retirement of facilities; reduction in revenue requirement, when. When a public utility sells electric power to other than its retail customers or disposes of, sells or

retires from service any facility, the commission may evaluate the efficiency or prudence of such electric power sale or disposition, sale or retirement from service, and if it finds that any such action was inefficient or imprudent, or caused a reduction of electric power available to its retail customers or in electrical generating capacity, the commission may reduce the revenue requirement resulting therefrom.

66-128k. Severability. The provisions of this act are declared to be severable, and if any section, sentence, clause or phrase of this act shall for any reason be held to be invalid or unconstitutional, the validity or application of the other provisions of the act shall not be affected, it being the intent of the legislature that the act shall stand notwithstanding the invalidity of any part.

APPENDIX K

Published Article in The Wall Street Journal
Dated Thursday, October 2, 1986

THE WALL STREET JOURNAL
Thursday, October 2, 1986

Careful Checks

'PRUDENCY REVIEWS' ARE CHANGING THE WAY UTILITIES SET RATES

Regulators' Scrutiny Results In Big Cost Disallowances For Some Nuclear Plants

Penalties for Mismanagement

By FREDERICK ROSE
Staff Reporter of THE WALL STREET JOURNAL

SAN ONOFRE, Calif.—Several years ago, a workman dropped a ruler here. The result is still being measured.

As it happened, the steel yardstick slid into one of the reactor vessels of the San Onofre Nuclear Generating Station, then under construction.

The mishap, by one accounting, delayed the vast project by two days and cost about $1 million. Together with much bigger purported foul-ups, it may cost the plant's owners far more than that.

The California Public Utilities Commission soon will decide how much consumers should be charged for a nuclear facility whose $4.51 billion cost is more than 10 times the original estimate. An arm of the commission's staff has recommended that San Onofre's owners, Southern California Edison Co. and San Diego Gas & Electric Co., be disallowed inclusion of up to $1.77 billion of the plant's expense in determining their rate base, a step that would greatly reduce the profits from the plant.

Worn-Out Principle

Similar situations are taking place throughout the country. With nuclear plants costing many times original estimates and sometimes producing unneeded power, state utilities commissions are sweeping aside a once-undoubted principle that utilities should earn a profit on all the money invested in generating facilities. Increasingly, commissions are inspecting how money was spent on plants as well as the need for the plants' capacity. By one count, state commissions will investigate nearly two dozen nuclear-generating units in the next few years.

Regulators call the inspections "prudency reviews." Utilities call them something close to outrageous.

"It's a heads-you-win-tails-I-lose proposition," says Wallace Behnke, vice chairman of Commonwealth Edison Co., the big Chicago-based utility. The problem, says Mr. Behnke, is that "the public is upset with the rising costs for electricity; public-utilities commissions are therefore under enormous pressure to do something."

Regulators already have made some sharp cuts. New York disallowed $1.4 billion of the more than $4.7 billion cost of Long Island Lighting Co.'s Shoreham nuclear plant. Pennsylvania commissioners threw out $369 million of the $3.8 billion spent by Philadelphia Electric Co. on its Limerick 1 unit and delayed a rate ruling on a further $640 million. And Kansas currently has set rates for customers of Kansas Gas & Electric Co. and two other utilities as if the Wolf Creek plant cost only $569 million; its actual cost was $3.1 billion.

Profound Effects

The financial effects of such disallowance can be profound. After the regulators' decision on the Wolf Creek plant, for instance, financially strapped Kansas Gas & Electric chopped its dividend in half.

The states' new tightfistedness is another blow to the already-troubled business of building big power plants.

"No utility official today wants to start a project without knowing whether he'll be able to recover its cost five or 10 years from now," says William J. Catacosinos, the chairman, president and chief executive officer of Long Island Lighting.

Some analysts charge that this new aggressiveness by regulators is breaking an informal rule that governed the utilities industry for decades: In return for utilities' investing money in facilities to meet public need, regulators allowed the companies a reasonable return on those investments. State officials, however, say that such an understanding was never meant to excuse mismanagement.

In Missouri, a review of Union Electric Co.'s Callaway nuclear project unearthed internal notes quoting a senior company official's complaint, late in the project, that "we don't know where we are; we don't know how we're going to get this job done; we must find a way." On the strength of that and other evidence, the Missouri regulators disallowed $384 million of the plant's $2.98 billion cost.

Microscopic Investigations

Construction problems in the past were rarely investigated by regulators. Whether prudently or imprudently incurred, utilities' investments in nuclear plants and other big projects usually were passed on wholesale to consumers. At most, small adjustments were made during "general rate cases," which are periodic reviews by regulators of a utility's rates, investments and returns.

The so-called prudency reviews, although they can look at any type of facility, are the product of the enormous increases in the cost of nuclear facilities. "The industry wasn't policed carefully in the past and was accustomed to passing on its costs to the consumer," says Randall Speck, a Washington lawyer involved in a number of

such reviews. Now, regulators focus on a project in almost microscopic detail.

The staff of California's commission, for instance, holds that San Onofre's owners were to blame in the ruler incident because the worker who dropped the ruler was supposed to be using a special measuring device—not an ordinary yardstick. "We pay a lot for nuclear projects and we have a right to top-quality work," says Philip Scott Weismehl, an attorney with the commission.

Many utilities, while challenging a number of disallowances in court, seem to have accepted the near inevitability of reviews. Increasingly, however, agreements are being struck between regulators and utilities that exempt the utility from a review in return for an agreed-upon disallowance. Such a pact now covers part of Middle South Utilities Inc.'s River Bend nuclear plant in Louisiana. An agreement recenty capped consumers' liabilities for the Nine Mile Point facility in New York, which is being managed by Niagara Mohawk Power Corp. And regulators and Southern California Edison yesterday agreed to drop a planned review of the utility's 15.8%-owned Palo Verde nuclear facility in Arizona, instead making disallowances proportional to those ordered for the utility's San Onofre plant.

When reviews *are* undertaken, state commissioners generally set up a special staff division to pursue, much like prosecutors, the case against the utility; the commissioners act as the judge. Because of the reviews' complexity, outside consultants are hired to analyze the performance of the utility and its contractors.

This adversarial method, regulators say, is the only way to conduct a meaningful review. "If the staff bends over backwards to be fair, then the case is in trouble from the ratepayers' point of view," says William Ahern, the director of the Public Staff Division of the California Public Utilities Commission. Mr. Ahern heads the Cali-

fornia commission's staff advocacy group in the review of the San Onofre nuclear plant, a study that industry observers consider one of the most thorough and, some say, most aggressive to be undertaken of a nuclear facility.

San Onofre, by industry standards, isn't a lemon. Although it cost more than 10 times the original estimate, its final cost per kilowatt of capacity, a widely used benchmark, is relatively low. Mr. Ahern himself notes that "the commission must consider whether an average-looking nuclear project has costs reasonable to put onto the utilities' customers."

Thousands of Exhibits

Answering that question has cost the commission and utilities over $30 million to date. More than four years in the making, the case has accumulated hundreds of volumes of reports and briefs, 10,000 exhibits and some 20,000 pages of transcripts.

Mr. Ahern's staff hired O'Brien-Kreitzberg & Associates Inc., a consulting firm with offices in San Francisco and in Merchantville, N.J. For more than a year, O'Brien-Kreitzerg's people pored over some of the millions of documents related to the plant's design and construction and interviewed employees of both Edison and Bechtel Group Inc., the principal contractor. "The point is to stand in the other fellow's shoes," says James O'Brien, the chief executive officer of O'Brien-Kreitzberg.

Doing that was at times a difficult task. Personal notes from some important meetings couldn't be found. A computer terminal used to search records suffered so many breakdowns that employees at the consulting firm felt their work was being sabotaged.

Lawrence Hamlin, the head of Edison's task force on the review, calls the problems "trivial."

Company officials agree the commission has a duty to investigate spending at San Onofre. But they think that

things have gone too far. "The whole project verges on being ludicrous," complains Michael Peevey, the executive vice president of Edison in charge of the company's case.

Marked by Animosity

The hearings were marked by animosity; a commission staff attorney recalls almost coming to blows with one of the utility's counsel. As the research progressed, O'Brien-Kreitzberg issued reports detailing costs it believed were avoidable. The consultants initially concluded that $720 million of San Onofre's costs could have been avoided. Later, that was increased to $1.77 billion, a figure that could be reduced to $1.13 billion if the commission agrees with a complicated "risk sharing" formula, under which consumers and the company would split certain costs.

Mr. Hamlin maintains that O'Brien-Kreitzberg wrongly played down the effects of the 1979 nuclear accident at Three Mile Island and a major California earthquake on the time that it took the Nuclear Regulatory Commission to approve the San Onofre reactors. Indeed, acknowledging a major error, O'Brien-Kreitzberg retracted a recommendation that $293 million be disallowed when it was found that a delay attributed to construction was in fact due to licensing delays at the NRC. Otherwise, the consulting firm stands by its work.

The schedule calls for an administrative law judge to issue a proposed ruling on Oct. 10. A formal ruling by California's Public Utilities Commission is expected later this month.

Each side publicly professes that its position will prevail. But industry analysts generally expect a disallowance of between $200 million and $400 million. "If it's more than $400 million, I'd be surprised; if it's more than $500 million, some folks at Southern California Edison may be looking for a job," says one observer with a laugh.

86-781 (1)
86-793 (2)

No.

Supreme Court, U.S.
FILED
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In the Supreme Court of the United States

OCTOBER TERM, 1986

KANSAS GAS AND ELECTRIC COMPANY,
Appellant,
vs.
THE STATE CORPORATION COMMISSION OF THE STATE OF KANSAS, ET AL.,
No. 86-781
Appellees.

KANSAS CITY POWER AND LIGHT COMPANY,
Appellant,
vs.
THE STATE CORPORATION COMMISSION OF THE STATE OF KANSAS, ET AL.,
No. 86-793
Appellees.

ON APPEAL FROM THE SUPREME COURT OF KANSAS

MOTION TO AFFIRM OR DISMISS

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29 pp

QUESTIONS PRESENTED

1. Whether the United States Constitution compels ratepayers to provide Appellants a return on more than the reasonable value of utility plant which is used and required to be used.
2. Whether tne Constitution prohibits consideration of a utility plant's cost efficiency in providing electric service for purposes of determining its reasonable value.
3. Whether the Kansas Corporation Commission's decision allowing a reasonable return on the reasonable value of the used and required to be used plant nonetheless jeopardizes the utilities' financial stability.

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KANSAS GAS AND ELECTRIC COMPANY,
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Appellees.

ON APPEAL FROM THE SUPREME COURT OF KANSAS

MOTION TO AFFIRM OR DISMISS

Appellee moves this Court to dismiss the appeal of the Appellants for want of a substantial federal question or, in the alternative, affirm the judgment of the Supreme Court of the State of Kansas on the grounds that the State Corporation Commission of the State of Kansas properly applied the required constitutional standards and achieved a reasonable result.

STATEMENT OF THE CASE

A. Introduction

This matter is an appeal by Kansas City Power and Light Company (KCPL) and the Kansas Gas and Electric Company (KG&E) from orders of the State Corporation Commission of the State of Kansas (KCC) concerning the interim rates associated with Kansas' first nuclear generating station, Wolf Creek. The arguments now raised by Appellants were decided by the Supreme Court of the State of Kansas in Case Nos. 58,914, 58,917 and 58,918, *Kansas Gas and Electric Co. v. Kansas Corporation Commission,* 239 Kan. 483, 720 P.2d 1063 (1986), *reh'g denied,* July 17, 1986. The Kansas Supreme Court affirmed the orders of the Kansas Corporation Commission, without modification, by a 6 to 1 decision. *Id.* (Schroeder, C.J., dissenting)

B. Facts

In 1979, the KCC created a special docket (No. 120-924-U) initiating a generic investigation of the projected costs and related matters of the Wolf Creek Generating Facility. The purpose of the generic investigation was to collect and assimilate data relevant to the anticipated filing of the formal application for rate relief. Five years later, in November 1984, the appellants filed applications requesting changes in its charges for electricity, predicated upon the inclusion of Wolf Creek in rate base. Both appellants amended their applications on January 31, 1985, restarting a 240-day statutory suspension period.

The Wolf Creek rate case represented the largest, most complex, and most publicly commented on rate case in

Kansas history. The Commission traveled to nineteen public hearings across the companies' service territories to hear the testimony of four hundred seventy-five ratepayers. During the rate case hearings, the Commission heard the testimony of one hundred sixty technical witnesses and admitted almost four hundred exhibits. The transcript of the proceedings, mammoth by Kansas standards, covered fifty-eight volumes and seventeen thousand, eight hundred and thirty pages. Briefs were filed by all parties, oral arguments heard, and on September 27, 1985, the KCC issued the "Wolf Creek orders".

The Wolf Creek orders have six interrelated conceptual components. The first three components of the orders deal with the recovery of the costs related to Wolf Creek, while the final three components deal with the return on construction costs. First, Appellants received almost all that they requested in expenses to maintain and operate the plant during its life, and to decommission the plant at the end of its operational life. Next, the Commission determined that $183 million of the construction costs of Wolf Creek were imprudently incurred. The imprudence exclusion equaled roughly ten percent of the total construction costs of Wolf Creek. Third, the KCC allowed the Appellants to recover *all* of the remaining ninety percent of the construction costs of Wolf Creek through annual depreciation expenses over the expected thirty year life of the plant. Thus, with the exception of the prudence disallowance, which is not at issue in this proceeding, the Appellants are allowed the recovery of *all* of the construction costs associated with Wolf Creek.

While the preceding regulatory adjustments dealt with the return or recovery of construction costs associated with Wolf Creek, the final three adjustments deal solely with the return or profit on the rate base. The Commission

first made an excess capacity adjustment. After analyzing the available capacity for each utility, projecting forward five years in determining the peak load responsibility and using a twenty percent reserve margin, the Commission found 327 megawatts of Wolf Creek "not required to be used" by KG&E. Using the same analysis the Commission found that 314 megawatts were "not required to be used" by KCPL. Appellants were not allowed a return *on* the portion of Wolf Creek which was not "used or required to be used." Next, the Commission found that the portion of Wolf Creek which is used and required to be used was an extraordinarily expensive means of providing base load capacity, and could have been provided at a more reasonable cost. After an extensive discussion of the economics of Wolf Creek, the Commission allowed the Appellants a return on the reasonable value of Wolf Creek, expressed in the form of $1,290 per kilowatt. Finally, the Commission allowed the accrual of carrying charges on the physical portion of the plant which was excluded.

In summary, the Commission disallowed ten percent of the construction costs as imprudently incurred costs. The remaining ninety percent of the construction costs are recovered through the use of annual depreciation expense over the expected life of the plant. The Commission allowed a return on the portion of the plant which was "used and required to be used" at the reasonable value of $1,290.00 per kilowatt. The KCC orders contemplated that the physical and economic excess capacity adjustments would be revised periodically and that, as the load forecasts and value of the plant increased, so would the return on ratebase. The Commission also allowed the Appellants to accrue carrying charges on the portion of the plant found to be physical and economic excess capacity.

Finally, it must be pointed out that the Wolf Creek orders on appeal are Interim Rate Orders. Because the rates were necessarily based on estimated costs, they are subject to review in permanent rate proceedings.

ARGUMENTS IN SUPPORT OF MOTION TO DISMISS OR AFFIRM

These consolidated appeals present no substantial federal question and should, therefore, be dismissed. In the alternative, since the Kansas Supreme Court applied appropriate constitutional standards in upholding the Kansas Corporation Commission's orders, its decision should be affirmed.

The KCC, in these cases, carefully weighed competing interests to determine reasonable rates based on the reasonable value of used and required to be used utility plant. The methods and procedures followed in making such determinations were reasonable, appropriate, and consequently, well within constitutional boundaries. Further, the rates that resulted have not and will not seriously jeopardize the financial stability of the utilities.

1. THE COMMISSION'S DECISIONS FOLLOWED CONSTITUTIONAL STANDARDS BY BALANCING COMPETING INTERESTS IN DETERMINING REASONABLE RATES BASED ON RETURN OF 90% OF WOLF CREEK COSTS AND RETURN ON THE REASONABLE VALUE OF USED AND REQUIRED TO BE USED PLANT.

The constitutional considerations involved in the making of rates have been well established by previous de-

cisions of this court. Ratemaking authorities are not tied to any particular formula or combination of formulae and are free to make pragmatic adjustments which may be called for by particular circumstances. The ratemaking process involves a balancing of investor and consumer interests. Neither interest is paramount and a regulated utility does not have a consitutional guarantee of net revenues. *FPC v. Hope Natural Gas Co.*, 320 U.S. 591 (1944) (hereinafter *Hope*). Rather, utilities are allowed the opportunity to earn a return on the value of property utilized for the public convenience, at the time such property is utilized, and when the utility has exercised "prudent," "efficient" or "economical" management. *Blue Field Waterworks and Improvement Company v. Public Service Commission,* 262 U.S. 679, 692-693 (1923); *Wilcox v. Consolidated Gas Company,* 212 U.S. 19, 41 (1909). Courts may not set aside a rate selected by a regulatory authority if it falls within a zone of reasonableness, *Permian Basin Area Rate Cases,* 390 U.S. 747 (1968), and if it produces no arbitrary result. *FPC v. Natural Gas Pipeline Co.*, 315 U.S. 575 (1942).

In the instant case, the Kansas Supreme Court has correctly found that the KCC's decisions accomplished a balancing of interests to establish rates within a zone of reasonableness using recognized methodology. This court should also conclude and thereby end its inquiry.

The decisions in these cases were based on a ratemaking framework which is well established and accepted. Like other state regulatory commissions, the KCC makes utility rates by use of a formula which provides for a reasonable rate of return *on* the reasonable value of "used and useful" utility property after recovery of all reasonable operating expenses. Return *of* the cost of utility property

is also provided for through depreciation expense. Not at issue in these appeals is the fact that the KCC does not, and did not in these cases, allow return of, or return on, plant costs which were imprudently incurred.

In these cases, the KCC found that about one-half of the new Wolf Creek plant was not physically needed to serve ratepayers and that its reasonable value was less than its original cost. In balancing the competing interests, however, the KCC did not apply the ratemaking formula as strictly as possible. Although no return was allowed on the excess capacity portions of the plant, a return of all the prudent original costs, or ninety percent of the total costs, was permitted. This was granted despite the fact that Kansas law would have permitted a disallowance of both the return on and return of the physical excess capacity costs. It is also noteworthy that the determination of the physical need for the plant was unusually lenient in that the KCC allowed for five years of future load growth as a reasonable planning horizon. As that projected load increases, more of Wolf Creek will be deemed used and required to be used and eligible for a rate of return. Likewise, if the value of the plant increases, that fact will also be reflected in rates.

The KCC's decision to allow for return of excess costs, but exclude return on these costs was a reasonable balancing of the competing interests. In doing so, the KCC considered all the relevant evidence in the voluminous record to arrive at its "risk sharing" approach.

A basic conclusion reached from the evidence was that the valuation of Wolf Creek should reflect its relative cost inefficiencies. Evidence presented to the KCC by expert witnesses for its staff and an intervenor clearly showed that the total life-cycle costs of the plant to ratepayers was

much greater than reasonable alternatives would have been.[1] These results were basically due to the fact that Wolf Creek's lower fuel costs would not offset its much higher capital costs relative to alternative capacity such as a coal-fired plant. Although it agreed with the witnesses' overall conclusion that Wolf Creek was an excessively expensive source of electricity, the KCC decided that a life-cycle evaluation required too many long-term projections to be appropriate for a precise valuation of the plant. The valuation method chosen instead took a more objective approach by reflecting current cost inefficiencies of the plant.

As suggested by the *Hope* case, in arriving at its valuation, the KCC looked at the circumstances to determine what "pragmatic adjustments" were necessary. The Commission considered the companies' decisions to build and continue construction of Wolf Creek, the economic costs to ratepayers and the companies of resulting rates and the risks assumed by the companies and their shareholders. The KCC found the evidence compelling that the companies' decisions to continue the project, especially after 1981, were not based on adequate analysis and review and appear to have stemmed from institutional inertia. Furthermore, by the end of 1981, the companies knew or should have known that the increased capital costs of Wolf Creek subjected its overall economics to serious question. This probable result was confirmed by the KCC finding that

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1. KCPL asserts that the KCC could not conclude in its Order that Wolf Creek would not produce a net benefit to customers over its life. (KCPL Jurisdictional Statement at 18). That is simply incorrect. The language apparently referred to by KCPL (A-99f) only notes that favorable rates may result from Wolf Creek sometime in the future. This, however, is far different than concluding that future favorable rates would totally offset past unfavorable rates. The KCC found this offset would not occur.

inclusion of Wolf Creek in rate base would result in rates that were significantly higher than other Kansas utilities, above the national average into the 1990's, and unreasonably high for ratepayers to pay. By not closely scrutinizing the desirability of continued construction after 1981, the companies also assumed the risk that Wolf Creek would not be a cost efficient source of electricity. This was especially true in view of declining growth in forecast load demands known to the Company from 1979 on, a reduction in the ownership share of a third owner and inability to sell participation power to other utilities. The deliberate and considered assumption of risks by the companies was particularly highlighted by the two KG&E shareholder votes in 1980 and 1981, which defeated resolutions to cancel the project in light of escalating construction costs and doubts about the need for capacity.

In view of all the circumstances, it was quite appropriate that the Commission use the capital costs of a coal plant providing the same capacity as Wolf Creek as its valuation benchmark. Capital costs above that were part of the risks that the companies took in deciding to continue construction.[2] The benchmark of $1,290 per KW must be viewed as especially appropriate in view of the fact that the KCC, in approving of a third party's purchase of a share of Wolf Creek in 1980, after protracted hearings that thoroughly aired many of the problems and diseconomies at the Wolf Creek venture, attempted to place a ceiling on the

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2. The $1,290 per KW valuation included $90 per KW to reflect the generating cost differences beetween Wolf Creek and a coal plant. KCPL mistakenly suggests that this represents only fuel savings and that a return on the total life-cycle savings should be paid each year. (KCPL Jurisdictional Statement at 18). This is clearly erroneous since the annual return provided in rates should be on the annual generating cost savings which have been translated into capital cost. This position is also strikingly at odds with KCPL's strenuous objection to a life-cycle analysis.

purchase price equivalent to $1,300 per KW as the reasonable value of the plant. *See*, Order Denying Rehearing (Appellants' Appendix, 15d-16d). However, in the instant case the KCC concluded that not all of the consequences flowing from the cost inefficiencies of Wolf Creek should be borne by the companies. As the Commission explained in its November 15, 1985, Order (Appellants' Appendix, 13d-14d):

> We found in our September order that risks were appropriately shared by not allowing a return on both the physical and economic excess portions of Wolf Creek but allowing a return of these costs. K.S.A. 66-128c, of course, clearly allows the Commission to "exclude all or a portion" of excess capacity costs of a utility so that not only the return on those costs but also the return of those costs may be disallowed. Although such an alternative was available, the Commission believes that the approach taken is more appropriate. As reflected in the prior order, the Commission considered the concerns for fuel diversity which prompted construction of Wolf Creek in determining that return of the investment was appropriate. This, however, was premised on no return on that portion of Wolf Creek which exceeded a reasonable valuation since we believe that the risks to be shared involve both the amount and cost of capacity resulting from the generation facility.

Thus, the Commission used the accepted ratemaking formula and determined the reasonable value of used and required to be used property. It then balanced competing interests by providing for return of, but no return on, excess costs. Each of these components is reasonable and supported by case law.

Commissions and courts across the country have recognized that application of a "used and useful" test to utility property is valid and appropriate. Thus, for example, the Pennsylvania Commission's disallowance of a return on excess capacity was upheld in *Philadelphia Electric Co. v. Pennsylvania Public Utility Comm'n,* 433 A.2d 620 (Pa. 1981). Similarly, the Iowa Supreme Court found no abuse in the commission's conclusion that ratepayers "should share with the utility's investors the cost of investment in excess capacity" and the risks of the capacity planning process. *Iowa Planners Network v. Iowa State Commerce Commission,* 373 N.W.2d 106, 110 (Iowa 1985). *See generally,* Colton, *Excess Capacity: Who Gets the Charge From the Power Plants?* 34 Hastings L.J. 1133, 1146-49 (1983). As noted by KCPL, this court has dismissed, for want of a substantial federal question, utility appeals dealing with recovery of costs of plant that is not used and useful because of abandonment or inoperability. (KCPL Jurisdictional Statement at footnotes 25, 26).

Although this court may not have explicitly approved the use of an efficiency standard for valuation purposes, it has recognized that there is no single formula for valuation and that all relevant evidence should be considered. *FPC v. Natural Gas Pipeline Co.,* 315 U.S. 575, 585 (1942). Furthermore, the court has apparently recognized that ratemaking valuation is not required "to insure value or to restore value that have been lost by the operation of economic forces." *Market Street Railway Co. v. Railroad Comm'n of California,* 324 U.S. 548, 566-67 (1945). Although that case included a tramway service which had little market value, the principle applies as well in the instant case where economic forces have changed the value of Wolf Creek from its book costs. At least one state court has explicitly approved the valuation of utility plant

at the cost of a more efficient alternative. *Utilities Comm. v. Power Co.*, 285 N.C. 377, 206 S.E.2d 269 (1974); *Utilities Comm. v. Mebanc Home Telephone Co.*, 298 N.C. 162, 257 S.E.2d 623 (1979).

The concept of "risk-sharing" is also now accepted by courts and industry commentators. *E.g., Iowa Planners Network v. Iowa State Commerce Commission*, 373 N.W.2d 106 (Iowa 1985); *Philadelphia Electric Co. v. Pennsylvania Public Utility Comm'n*, 433 A.2d 620 (Pa. Comwlth 1981); Smartt, "The Social Compact and the Sharing of Risk," Public Utilities Fortnightly, July 10, 1986. Although the application of the concept to failures in utility capacity planning and construction may be relatively recent, the principle of sharing economic consequences of utility investment has been previously recognized. *Democratic Cert. Comm. of D.C. v. Washington MAT Com.*, 485 F.2d 786 (D.C. Cir. 1973), *cert. denied*, 415 U.S. 935 (1974) (sharing of gains of sale of utility asset).

It is consequently readily apparent that the KCC's approach in these cases was reasonable, equitable and lawful. Appellants nonetheless argue that these cases are of national significance because of their chilling effect on the construction of utility plant. It is true that regulatory commissions have been faced recently with very troublesome problems arising from construction of generating units. However, there is no need and it would be undesirable for this court to attempt to fashion any more specific constitutional guidelines than already exist. Each regulatory commission should continue to have the flexibility to make the pragmatic adjustments appropriate to the circumstances, as they have traditionally done. Furthermore, there is certainly no national crisis portended by the instant cases. The only "chilling" effect of the

KCC decisions is to encourage careful and prudent utility planning for efficient provision of electrical power. Such a consequence does not require this court's attention. Moreover, radical departure from the flexible and discretionary guidelines that state regulators have traditionally relied on, particularly under these facts, would have an equal, if not more drastic chilling effect on the efforts of state regulators to fashion fair, balanced and workable solutions to the economic and capacity problems created by utility over-construction.

2. THE COMMISSION'S DETERMINATION OF WOLF CREEK'S REASONABLE VALUE RESULTED FROM A CONSTITUTIONAL APPLICATION OF A CONSISTENT STANDARD AFTER PROPER NOTICE AND AN OPPORTUNITY TO BE HEARD.

Appellant KG&E suggests that the valuation of Wolf Creek is inconsistent with the method used to value other KG&E assets, and thus violates its equal protection rights under the fourteenth amendment. (KG&E's Jurisdictional Statement, p. 16-17). This claim is without merit. Appellants' contention fails to recognize the fact that the Commission applied an overall standard of valuation consistent with the utilities' statutorily imposed duty to provide efficient service.

As Appellant KG&E concedes, the appropriate standard of review for economic regulation of this type is the lenient "rational basis" standard. *Exxon Corp. v. Eagerton,* 462 U.S. 176 (1983); *New Orleans v. Duke,* 427 U.S. 297 (1976). Thus, Appellee must merely show that a rational basis eixsts for the valuation of Wolf Creek at a different level from the value of Appellant KG&E's other assets. Thus burden is easily met.

Simply stated, the Commission has consistently applied the same standard of efficiency to all of KG&E's property. In explaining that its other plant was valued at original book cost, KG&E fails to distinguish between the method or standard employed and the result gained from the application of that standard. It is beyond dispute that KG&E has a duty to provide reasonably efficient service at reasonable rates. Indeed, like all utilities, KG&E is obligated to incur only those costs which are reasonable and necessary to provide service in the most efficient and least costly manner. In this case the Commission found that a portion of the Wolf Creek costs were inefficient, excessive, and elected not to pass those excessive costs through to ratepayers. If evidence had been presented of other excessively expensive assets during the Wolf Creek hearings, the Commission would have been compelled to reflect the cost inefficiencies in the value of those assets. However, since no such evidence was presented of the value of other assets during the Wolf Creek rate hearings, KG&E's claim of inconsistent valuation lacks a factual foundation for support.

The standard of "efficient" service is rationally related to the legitimate state interests of (1) protecting ratepayers from excessively expensive generation facilities and (2) sending the proper economic signals to utilities regarding the construction of inefficient plant. Although the application of this standard to Wolf Creek resulted in a value that was different from other asset values in KG&E's ratebase, this result was justified by the evidence presented. (Appellants' Appendix, 69c-100c).

There should be no question that this Commission may reflect Wolf Creek at a value other than original cost. Kansas law clearly holds that a utility has no vested right

in a particular formula or combination of formulae. *Southwestern Bell Tel. Co. v. State Corp. Comm'n*, 192 Kan. 39, 386 P.2d 515 (1963). The right of this Commission to use its broad discretion to determine the reasonable value of plant reflects the need for "pragmatic adjustments which may be called for by particular circumstances." *FPC v. Natural Gas Pipeline Co.*, 315 U.S. 575, 585 (1942). For instance, in *Pennsylvania Public Utility Comm'n v. Pennsylvania Gas & Water*, 492 Pa. 326, 424 A.2d 1213 (1980), the court held that the Pennsylvania Commission could depart from the general "fair value" standard to an "original cost" standard. Although the property in *Penn* was received at no cost, due to state contributions, the court found it just and reasonable to not require consideration of "reproduction costs", as was necessary for other assets. Clearly, this Court in *Market Street Railway Co. v. Railroad Commission of California*, 324 U.S. 548 (1945) recognized the mercurial nature of value and the relationship between the operation of economic forces and value for regulatory purposes.

Indeed, recent cases have found that comparisons to a substitute plant rather than the reproduction cost of existing plant could limit the value of an existing system. *North Carolina v. Duke Power Co.*, 285 N.C. 377, 206 S.E. 2d 269 (1974); *see also Citizens Action Coalition of Indiana, et al. v. Northern Indiana Public Serv. Co., et al.*, 485 N.E.2d 610 (Ind. 1985). In addition, the use of a surrogate or hypothetical capital structure for comparison is well recognized in Kansas law. *Sekan Electric Coop. Ass'n v. Kansas Corp. Comm'n*, 4 Kan. App. 2d 477, 604 P.2d 188 (1980). Clearly, the KCC's valuation of Wolf Creek was neither novel nor arbitrary, but rather a reasonable application of a well recognized standard, and well within constitutional parameters.

KG&E also suggests that since the Commission did not use a valuation method that was suggested by any of the parties, KG&E's right to procedural Due Process was violated. KG&E's contention is legally without merit and factually false. The valuation method actually used by the Commission was a variation of an analysis presented by the Appellants. In essence, the valuation is a combination of the life-cycle analysis proposed by Dr. Rosen (a staff witness) and the bus bar cost analysis used by the utilities.

From a factual standpoint, the Commission stated: "In determining the proper valuation of capital costs, the Commission has concluded that the proper value is what a coal-fired plant meeting the applicant's needs would have cost *as suggested by Intervenor Mary Margaret Rogers.* (Appellants' Appendix, 104c, Paragraph 9, emphasis added). Thus, KG&E's protestations that "KG&E was completely surprised by the *KCC's* creation of such a valuation method" (KG&E jurisdictional statement, p. 18, emphasis added) are shown as factually false. KG&E had every opportunity, and indeed did present considerable evidence concerning the value of Wolf Creek. In fact, all parties presented evidence on the crucial issue of value. The result of the Commission using a method other than the one proposed by KG&E hardly rises to the level of a procedural Due Process claim.

KG&E's failure to distinguish between its Due Process rights as to the issue of valuation and the method the Commission used to analyze the valuation issue is not unique. In *R.R. Comm'n v. Pacific Gas Co.*, 302 U.S. 388 (1938), this Court stated:

> The complaint is not of the absence of these rudiments of fair play but of the method by which the Com-

> mission arrived at its results. As to this, a fundamental distinction must be observed. While a fair and open hearing must be recorded as an inexorable safeguard, we do not sit as board of revision but to enforce constitutional rights. *San Diego Land & Town Co. v. Jaspar,* 189 U.S. 439, 446. When the ratemaking agency of the State gives a fair hearing, receives and considers the competent evidence that is offered, affords opportunity through evidence and argument to challenge the result, and makes its determination upon evidence and not arbitrarily. The requirements of procedural due process are met, and the question that remains for this Court, or a lower federal court, is not as to the mere correctness of the method and reasoning adopted by the regulatory agency, but whether the rates it fixes will result in confiscation. (302 U.S. at 393-4).

The Commission received, considered, analyzed in the order and rejected KG&E's value of Wolf Creek. KG&E presented its direct evidence on valuation in the rate case, and argued against the valuation method ultimately chosen by the Commission during the rehearing proceeding. Clearly, KG&E's Due Process rights have been satisfied. KG&E's right to an opportunity to be heard in regard to the issue of valuation has been met. KG&E's claim to the contrary is without merit.

There is no doubt that under the fourteenth amendment KG&E has the procedural rights to notice and an opportunity to be heard. *Morgan v. United States,* 304 U.S. 1 (1938). By an order dated March 29, 1985, the Commission defined six Wolf Creek related issues that were to be heard on a common record. The sixth issue was: "whether any portion of the cost of acquisition,

construction or operation of Wolf Creek were incurred due to a lack of efficiency or prudence, included, but not limited to, consideration of those factors to be considered pursuant to K.S.A. 1984 Supp. 66-128g(a)". (Appellant's Appendix, p. 10c). Clearly, KG&E received specific notice that the value of Wolf Creek was a controverted issue. Indeed, in its jurisdictional statement KG&E states, "the valuation of Wolf Creek was the most important issue before the KCC". (KG&E jurisdictional statement, p. 18). KG&E's contention that it did not have adequate notice, when viewed in light of the specific notice in the Commission's March 29, 1985 order and the admitted general notice KG&E had that valuation was a crucial issue before the KCC, is simply incorrect.

3. THE END RESULT OF THE COMMISSION'S DECISION PROVIDES FOR REASONABLE NON-CONFISCATORY RATES AND DOES NOT SERIOUSLY JEOPARDIZE THE UTILITIES' FINANCIAL INTEGRITY.

As discussed above, the KCC's decisions in these cases were the result of a careful balancing of competing interests within a reasonable ratemaking framework following appropriate procedure. Appellants nonetheless misconstrue *Hope* and its progeny to suggest that the KCC's decisions result in confiscation and that the Kansas Supreme Court has misapplied the *Hope* standard. Even assuming *arguendo* that Appellants are correctly interpreting *Hope*, no serious threat to their financial integrity exists which requires remedy.

Even a summary reading of the opinion of the Kansas Supreme Court reveals that the court had a complete understanding of the requirements of *Hope* and its progeny

and meticulously applied the evaluation and balancing required by *Hope*.

> In *Hope*, the United States Supreme Court addressed the considerations to be taken into account by the Federal Power Commission in setting 'just and reasonable' rates for natural gas companies, as required by § 4(a) of the Natural Gas Act of 1939, 15 U.S.C. § 717c(a) (1982). In supplying the standard requiring 'just and reasonable' rates, the *Hope* court emphasized that the focus of inquiry is properly upon the end result or 'total effect' of the rate order, rather than on the rate setting method employed. The court described the rate setting process as a balancing process involving the weighing of certain enumerated interests of the consumer and of the investor. The court stated that the ratemaking process involves a balancing of the investor and the consumer interests and that public utility regulation does not ensure that the business shall produce net revenues.

Kansas Gas & Electric Co. v. Kansas Corp. Comm'n, 239 Kan. 483, 490, 720 P.2d 1063, 1071 (1986) (Appellants' Appendix, p. A-10a). The Kansas Supreme Court acknowledged the interpretation of *Hope* in *Permian Basin Area Rate Cases*, 390 U.S. 747, *reh'g denied*, 392 U.S. 917 (1968), wherein this court held that a rate order selected by a regulatory commission within the "broad zone of reasonableness" cannot properly be attacked as confiscatory. The Kansas court concluded, "All of these cases clearly support the general principle that a state regulatory agency, in setting a rate for a public utility, must have as its goal a rate fixed within the 'zone of reasonableness' after an application of a balancing test in which the interests of all concerned parties are considered." (Appellants' Appendix, p. A-12a-A-13a).

The Kansas Court properly understood and properly applied the balancing test required by *Hope*. The Kansas court's characterization of the issue in *Hope*, cited by Appellant Kansas City Power & Light, was evidently borrowed from *Pennsylvania Electric Co. v. Pennsylvania Public Utility Comm'n*, 509 Pa. 324, 502 A.2d 130 (Pa. 1985), wherein the Pennsylvania Supreme Court said:

> The issue presented in this appeal is a narrow one, namely whether the decision of the United States Supreme Court in *Federal Power Commission v. Hope Natural Gas Company*, 320 U.S. 591, 64 S.Ct. 281, 88 L.Ed. 333 (1944) established a requirement, of constitutional dimension, that utliity rates set by regulatory authorities be set at sufficiently high levels as to guarantee, irrespective of countervailing consumer interests, the continued financial integrity of the utilities concerned.

The similar characterization of the issue in *Hope* is easily understandable in light of the similarity of Appellants' arguments before the Kansas Supreme Court. In both cases, Appellants contended that continued financial integrity of their businesses was required by the *Hope* decision. The Kansas Supreme Court agreed with the Pennsylvania Supreme Court's interpretation of *Hope*, holding that:

> . . . the decisions of the United States Supreme Court did not establish, as a constitutional requirement, that the end result of a ratemaking body's adjudication must be the setting of rates at a level that will, in any given case, guarantee the continued financial integrity of the utility. Rather, *Hope* requires only that the regulatory authority balance competing consumer and investor interests to determine just and reasonable rates providing a return on used and useful property.

The essence of Appellants' arguments in these cases is that regulatory authorities may not reasonably apply accepted ratemaking principles if doing so would result in low earnings for the utility. This is an erroneous interpretation of constitutional standards which was directly addressed by the court in *Pennsylvania Electric*:

> The "used and useful" principle is soundly based, for it serves to protect consumers from exploitation, and it comports with the view that, in fairness, consumers should not be required to buoy up failing utility companies by being required to, in effect, provide public subsidies for utility properties that are not useful in the public service. If the Hope decision were to be interpreted as providing constitutional guarantees for the achievement of investor interest, the "used and useful" principle would have to yield, at least in exceptional situations where the financial integrity of a utility is imperiled, but we do not perceive from Hope that investor interests are to be accorded such a guaranteed status.

Ibid., 502 A.2d at 134. *See also, Citizens Action v. Northern Indiana Public*, 485 N.E.2d 610, 614 (Ind. 1985), *cert. denied*, 106 S.Ct. 2240 (1986).

The Pennsylvania Supreme Court found support for its conclusion in noting that similar results from similar facts had been reached in *In re: Jersey Central Power & Light Co.*, No. A-162-81T2 (July 28, 1983), *cert. denied*, 95 N.J. 217, 470 A.2d 433 (1983), which had been subsequently dismissed for want of a substantial federal question, *Jersey Central Power & Light Co. v. Board of Public Utilities of New Jersey*, 466 U.S. 947 (1984). The appeal of the *Pennsylvania Electric* decision was also subsequently dismissed by this court. *Pennsylvania Electric Co. v. Pennsylvania Public Utility Commission*, 509 Pa. 324,

502 A.2d 130 (Pa. 1985), *appeal dismissed sub nom. Metropolitan Edison Co. v. Pennsylvania Public Utilities Commission,* 106 S.Ct. 2239 (1986).

> Unlike the grant or denial of certiorari, which expresses no intimation as to the merits of a case, a dismissal for want of a substantial federal question is, like a summary affirmance, a decision on the merits. *Ohio ex rel Eaton v. Price,* 360 U.S. 246, 247, 79 S.Ct. 978 (1959) (other citation omitted). The Supreme Court of the United States has, therefore, through dismissal of the *Jersey Central* appeal, stated implicitly its approval of the holding in that case, and our holding in the instant case is identical to that which was approved in *Jersey Central.*

Ibid., 502 A.2d at 136.

This Court has thus agreed that reasoned regulatory principles such as "used and useful" do not yield to the financial interests of utilities. Appellants have attempted to distinguish the instant cases from those dismissed by this Court by noting that those cases involved cancelled or inoperable utility plants. Such a distinction has no discernible legal basis. The constitution does not afford different guarantees based on the regulatory reasons for finding a utility plant not used and useful. A contrary conclusion would encourage utility companies to initiate and complete construction of utility plant, even if construction of the plant was cost inefficient because it was too expensive or otherwise could not provide efficient service. Such a perverse incentive cannot be found to have been the end result contemplated by *Hope.*

Even if Appellants' arguments were correct, however, there is no serious threat to the utilities' financial stability. Appellee has discovered only one recent case

which found that the end result test of *Hope* may have been violated. In *Jersey Central Power and Light Co. v. Federal Energy Regulatory Commission,* 768 F.2d 1500 (D.C. Cir. 1985), the court reversed an earlier decision and remanded to FERC for a full evidentiary hearing on whether the decision to disallow costs of a cancelled nuclear plant violated *Hope*. That decision was subsequently vacated by the full court, but even affording full consideration that expansive view of *Hope's* financial guarantees, there is no constitutional infirmity with the KCC's decisions.

The decision in *Jersey Central* reflected concern with the disallowance of cancelled plant costs in the face of the utility's assertions that for four years it had (1) been unable to pay any dividends on its common stock; (2) had been repeatedly on the edge of being forced into bankruptcy; (3) had no access to the long-term capital markets; and (4) had been wholly dependent upon a short-term revolving credit agreement which was subject to termination at a moment's notice. *Ibid.*, 768 F.2d at 1502.

The Appellants in these cases have not and cannot argue that they have been or will be in financial distress even approaching that of Jersey Central Power and Light, much less those of other troubled utilities with cancelled or abandoned generating plants. Although their returns have been restricted, as permitted by *Hope*, there is no realistic concern that Appellants have lost financial integrity. *See* Cleaves, *Constitutional Protection for the Utility Investor: The Confiscation Doctrine After Cleveland Electric Illuminating Co. v. Public Utilities Commission of Ohio*, 12 B.C. Environment Affairs L.Rev., 527 (1985). This is especially true in light of the fact that the KCC orders envision greater returns on Wolf Creek as it becomes more used and useful and as its value relative

to coal plants increases. In such circumstances it is especially important that the reasonableness of rates be tested by actual experience rather than speculation. *Brush Electric Co. v. Galveston,* 262 U.S. 433 (1923); *See William v. Consolidated Gas Co.,* 212 U.S. 19, 41 (1908). There is no actual experience suggesting that the utilities' stability is in jeopardy to the extent that the KCC orders were outside the zone of reasonableness in violation of *Hope.*

CONCLUSION

No substantial Federal question exists in these considered cases since the Kansas Commission decisions resulted in fair, reasonable, and lawful rates. The Kansas Supreme Court applied the correct constitutional standards in upholding the KCC's decisions. This Court should, therefore, grant this Motion to Dismiss or Affirm.

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No. 86-781

IN THE
Supreme Court of the United States
OCTOBER TERM, 1986

KANSAS GAS AND ELECTRIC COMPANY,
Appellant,

v.

STATE CORPORATION COMMISSION OF
THE STATE OF KANSAS,
Appellee.

On Appeal from the Supreme Court of Kansas

APPELLANT'S REPLY TO MOTION TO AFFIRM OR DISMISS

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IN THE

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OCTOBER TERM, 1986

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KANSAS GAS AND ELECTRIC COMPANY,
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STATE CORPORATION COMMISSION OF
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Appellee.

On Appeal from the Supreme Court of Kansas

APPELLANT'S REPLY TO MOTION TO AFFIRM OR DISMISS

Appellee has filed a Motion to dismiss this appeal for want of substantial federal question or, in the alternative, affirm the judgment of the Kansas Supreme Court. This Court should overrule that Motion and allow plenary review.

ARGUMENT

The majority of Appellee's arguments do not merit a reply, so Appellant Kansas Gas and Electric Company (KG&E) will not address each point in Appellee's Motion.

A. The Proper Issue Is Whether KG&E's Property Was Confiscated.

The Kansas Corporation Commission (KCC) confiscated KG&E's property by denying KG&E's investors *any* return on 78 percent of KG&E's prudent investment

in Wolf Creek.[1] Appellee does not dispute that fact. Instead, Appellee argues that because KG&E will recover 90 percent of the cost of constructing Wolf Creek over its 30 year life, KG&E's investors have not been harmed and KG&E's property has not been confiscated. Appellee is mistaken. No investor would consider himself unharmed if his original investment were paid back ratably over a 30 year period, with no return on 78 percent of that investment. The purpose of investing is to earn a return on funds invested. KG&E's investors have been denied the time value of 78 percent of their funds invested in Wolf Creek. The impact of the 78 percent denial is greatly magnified because it must be borne entirely by KG&E's common shareholders. KG&E's common shareholders are penalized $95 million *each year*, a large penalty for a company with a total equity capitalization of only $800 million.

Under Appellee's theory of regulation, KG&E's ratepayers will receive the benefits of investors' funds over a 30 year period and will not pay a return on 78 percent of the amount originally invested. This unique method of regulation does not comport with the traditional regulatory bargain or the standard set forth in *Federal Power Commission v. Hope Natural Gas Company*, 320 U.S. 591 (1944). Traditional regulation and *Hope* require consideration of both ratepayers' and investors' interests.

Under *Hope*, the interests of ratepayers and investors must be balanced. The investor interest, as discussed in *Hope*, is a "return to the equity owners . . . commensurate with returns on investments in other enterprises having corresponding risks." 320 U.S. at 603. Further, the return "should be sufficient to assure confidence in the financial integrity of the enterprise." *Id.* The KCC,

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[1] This denial of return was effected in large part by a revaluation disallowance not based on a finding of imprudence, nor on a finding that the plant should have been cancelled.

in allowing KG&E to earn an equity return of only one percent (see Appellant's Jurisdictional Statement at 15), did not provide a return to KG&E's owners commensurate with other enterprises. The KCC did not balance the interests of investors and ratepayers, but rather provided all of the benefits to ratepayers and none to investors. Allowing KG&E to recover, over a 30 year period, 90 percent of the costs incurred in constructing Wolf Creek, without an adequate return for the use of the funds invested, is confiscatory.

B. The KCC Denied KG&E Procedural Due Process.

Appellee admits that "[t]here is no doubt that under the fourteenth amendment KG&E has the procedural rights to notice and an opportunity to be heard," (Motion To Affirm Or Dismiss at 17) but argues that KG&E's procedural due process claim "is legally without merit and factually false" (*id.* at 16). If KG&E has the legal right to due process, its claim has legal merit. The actual dispute, therefore, is the factual question or whether KG&E was afforded due process. Because the Kansas Supreme Court did not address KG&E's claim, review by this Court is necessary and proper.

Appellee claims that KG&E had an opportunity to present evidence about valuing Wolf Creek as a coal plant because this valuation method was "suggested by Intervenor Mary Margaret Rogers." (Motion To Affirm Or Dismiss at 16). This argument does not address the issue. No evidence on using the assumed cost of a hypothetical coal plant as the basis for valuing Wolf Creek was presented at the hearings before the KCC. Intervenor Rogers, one of 475 public witnesses, did not present any testimony, let alone expert testimony, on the valuation of Wolf Creek. The suggestion of Intervenor Rogers was first made in a post-hearing brief, without any supporting record evidence. Appellee's reliance on an unsupported, non-evidentiary post-hearing "suggestion" as

satisfaction of KG&E's right to procedural due process is misguided.

Appellee also argues that KG&E presented "considerable evidence concerning the value of Wolf Creek." (*Id.*). KG&E did not have an opportunity to present evidence on the issue of the measure of value adopted by the KCC for Wolf Creek. KG&E's evidence concerned the amount of its prudent investment in Wolf Creek and a rebuttal to the life-cycle valuation analysis proposed by a Staff witness. This is not equivalent to evidence on the use of the assumed cost of a hypothetical coal plant as a surrogate measure of value for Wolf Creek.

KG&E's evidence concerning the use of life-cycle analyses for valuation purposes persuaded the KCC not to use such an analysis. The KCC stated that life-cycle analyses "required too many long-term projections to be appropriate for a precise valuation of the plant."[2] (*Id.* at 8). Thus, KG&E addressed and repudiated the sole alternative to historic cost ratemaking proposed during the proceedings and was denied the opportunity to address the methodology ultimately adopted by Appellee. That denial violates KG&E's right to procedural due process.

Appellee argues that KG&E received procedural due process because it "argued against the valuation method ultimately chosen by the Commission during the rehearing proceeding." (*Id.* at 17). Appellee's suggestion that KG&E was granted rehearing on this issue is a misstate-

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[2] After rejecting in its Order the use of a life-cycle analysis, Appellee now argues that the method of valuation ultimately adopted "is a combination of the life-cycle analysis proposed by Dr. Rosen (a staff witness) and the bus bar cost analysis used by the utilities." (Motion to Affirm or Dismiss at 16). This is merely an *ex post* rationalization of its Order. Further, KG&E did not present the bus bar cost analysis as a valuation method. Instead, the analysis was presented as part of KG&E's generation planning tools. There was no testimony concerning the use of bus bar cost analyses as a method of rate base valuation.

ment. KG&E was afforded its right to petition for rehearing by written motion and oral argument. KG&E's request for rehearing on this issue, however, was denied. In short, there was no rehearing proceeding. Even assuming that the denial of rehearing based on written motion and oral argument constitutes rehearing, such an *ex post* hearing does not satisfy due process. KG&E must be afforded notice and an opportunity to be heard before a decision is reached. Argument on a motion for rehearing is too late. *See Virginia Electric and Power Company v. State Corporation Commission*, 226 Va. 541, 548, 312 S.E.2d 25, 29-30 (1984).

C. The Used and Useful Test Does Not Justify the KCC's Actions.

To justify the KCC's rate order, Appellee cites cases in which commissions have applied a "used and useful" test to deny recovery of costs. This test requires that assets included in rate base be used and useful in serving ratepayers. Appellee would have this Court believe that the issues in this case are similar to cases involving cancelled plants, inoperable plants or plants not currently needed. This case, however, does not involve such a plant. Wolf Creek has been operating for over a year, providing energy for Kansas customers. In fact, Wolf Creek's performance in its first year set a national record by generating over 8.9 billion kilowatthours. KG&E's customers are receiving the full benefits of Wolf Creek operation at the expense of KG&E's investors.

The KCC did not merely exclude costs related to the part of Wolf Creek that it believed represents excess capacity. Rather, the KCC denied a return on a significant portion of the Wolf Creek capacity that it found was providing benefits to KG&E's customers. (See Appellant's Jurisdictional Statement at 5.) After the KCC excluded a portion of Wolf Creek from recovery because it found the capacity unnecessary to serve KG&E's demand, the KCC went even further and valued the portion of Wolf

Creek that it found necessary to serve KG&E's customers at an "economic value" that is less than half of the plant's actual cost. Revaluation of the portion of Wolf Creek needed to serve KG&E's customers—the portion that is undeniably used and useful—is improper and arbitrary.

The essence of Appellee's argument is that the ratemaking theory of "used and useful" takes precedence over the constitutional requirement of just compensation. Appellee asserts that "reasoned regulatory principles such as 'used and useful' do not yield to the financial interests of utilities." (Motion To Affirm Or Dismiss at 22.) Protection of property from confiscation is not merely a "financial interest of utilities," it is part of the constitutional protections accorded by the Fifth Amendment. Appellee, however, believes that the KCC's finding of "economic excess capacity" justifies the confiscatory result achieved. This is misguided.

A regulatory body may choose among alternative ratemaking formulae, but the choice must not be applied arbitrarily. In the present case the KCC applied its economic revaluation arbitrarily to Wolf Creek and not to any of KG&E's remaining assets, nor to the assets of any other Kansas utility. This unique valuation method resulted in the lowest possible rate base valuation for Wolf Creek. The result achieved is also confiscatory. The return allowed by the KCC is so low as to fall below the permissible zone of reasonableness.

CONCLUSION

The questions presented in KG&E's Jurisdictional Statement are substantial and require plenary consideration. Therefore, Appellee's Motion To Dismiss Or Affirm should be denied.

Respectfully submitted,

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Nos. 86-781 and 86-793

In the Supreme Court of the United States

OCTOBER TERM, 1986

KANSAS GAS AND ELECTRIC COMPANY,
Appellant,

vs.

STATE CORPORATION COMMISSION OF
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Appellee.

KANSAS CITY POWER AND LIGHT COMPANY,
Appellant,

vs.

STATE CORPORATION COMMISSION OF
THE STATE OF KANSAS,
Appellee.

ON APPEAL FROM THE SUPREME COURT OF KANSAS

MOTION BY THE STATE CORPORATION COMMISSION OF THE STATE OF KANSAS TO DISMISS KANSAS GAS AND ELECTRIC COMPANY FOR LACK OF A CASE OR CONTROVERSY

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ON APPEAL FROM THE SUPREME COURT OF KANSAS

MOTION BY THE STATE CORPORATION COMMISSION OF THE STATE OF KANSAS TO DISMISS KANSAS GAS AND ELECTRIC COMPANY FOR LACK OF A CASE OR CONTROVERSY

Pursuant to Rule 42 of the Rules of the United States Supreme Court, Appellee State Corporation Commission of the State of Kansas (KCC or Commission) respectfully moves this Court to dismiss Case No. 86-781, the appeal of Kansas Gas and Electric Company (KG&E), for mootness, or a lack of a case or controversy.

STATEMENT OF THE CASE

This matter involves consolidated appeals by Kansas City Power and Light Company (KCPL) and the Kansas Gas and Electric Company from orders of the State Corporation Commission of the State of Kansas concerning interim rates associated with Kansas' first nuclear generating station, Wolf Creek. The Kansas Supreme Court affirmed the Commission's orders in *Kansas Gas and Electric Co. v. Kansas Corporation Commission,* 239 Kan. 483, 720 P.2d 1063 (1986), reh'g denied, July 17, 1986. The United States Supreme Court noted probable jurisdiction on February 23, 1987.

ARGUMENT AND AUTHORITIES

It is well settled that federal courts may act only in the context of a justiciable case or controversy. *Benton v. Maryland,* 395 U.S. 784, 788 (1969). The lack of jurisdiction to review moot cases derives from the requirement of Article III of the Constitution under which the exercise of judicial power depends upon the existence of a case or controversy. *Liner v. Jafco, Inc.,* 375 U.S. 301, 306 n.3 (1964). Indeed, a controversy must exist at all stages of appellate review, and not merely at the beginning of the action. *S.E.C. v. Medical Committee for Human Rights,* 404 U.S. 403 (1972). No such justiciable controversy now exists as to KG&E's appeal because recent developments before the KCC have substantially altered the relevant facts.

In its appeal to this Court, KG&E alleges the 1985 Wolf Creek rate orders violated its constitutional rights by setting confiscatorily low rates and denying it equal protection and due process of law. However, the 1985 Wolf

Creek order was interim in nature. It was well understood by all parties that a permanent rate case would be heard subsequently. In the case of Appellant KG&E, a permanent rate proceeding was held and the attached order issued. KG&E neither requested rehearing nor appealed the order, and with good reason. The current order granted virtually all that it requested. (KG&E Jurisdictional Statement, p. i) Thus, KG&E's rates are not based on the 1985 order, which was interim in nature, but rather on an order issued by the Commission on March 11, 1987.[1] The recent "permanent" order has results which allow substantial improvements in KG&E's finances, delays previously authorized rate increases and reduces the space heating rate, all as requested by KG&E. Significantly, that order also provides for a 5 year phase-in of the Wolf Creek physical excess capacity and amortization of the costs previously found imprudent. (Appendix, p. A26, ¶ 41, p. A31, ¶ 44) Furthermore, the March 11th order contains a valuation of the Wolf Creek plant at its full "prudent" original cost rather than the valuation method forming the basis for KG&E's equal protection and due process contentions. Consequently, there is no legal or factual basis for appeal of the original interim order since any review by this Court would have no effect on KG&E's rates or earnings. Significantly, KG&E's witness in the permanent rate proceeding reached the same conclusion when he maintained that the Wolf Creek appeal in this court would not change nor alter the strategy of KG&E in reestablishing its financial health. (Transcript attached as Appendix)

As is customarily true of initial changes in rates due to completion of large electric generating plants, the

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1. Order in Docket Nos. 142,098-U and 149,109-U attached as Appendix.

original Wolf Creek orders were interim in nature.[2] Because those interim rates were based upon estimated data, permanent rates were not to be established until six months of historical data was gathered from the operation of Wolf Creek. However, in addition to requesting that its rates be made permanent, KG&E on December 9, 1986, requested Commission approval of a "rate stabilization overall plan" consisting of a number of interrelated accounting, financing and rate elements which it believed would benefit both ratepayers and investors.

In its rate stabilization plan KG&E urged the Commission to (a) revalue Wolf Creek at $2,376.00 per KW; (b) approve a mechanism which would allow all of Wolf Creek capacity to be recognized in rates by 1992; (c) delay approximately $80 million in rate increases already approved by the Commission;[3] and (d) lower, by approximately $6 million per year, the space heating rate currently on file with the Commission. In addition, KG&E requested various accounting changes and prospective rate findings. KG&E also requested Commission approval to purchase "key-man" life insurance, and dedicate an $800 million income stream generated by these insurance policies to Kansas jurisdictional cost of service.

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2. Interim rates are rates subject to change or adjustment. Traditionally the adjustments are performed in the next permanent rate case. The Commission's rationale for making KG&E's rates interim is found in the Joint Appendix, p. 122c-123c.

3. In the initial case concerning Wolf Creek, KG&E, as well as a number of intervenors and staff, proposed a variety of phase-in plans. The Commission ultimately adopted a four step, nine year phase-in, which had interim rate increases due on September 27, 1987, and September 27, 1988. The KG&E plan proposed delaying the September 1987 phase-in increase until January 1, 1989, and delaying the September 1988 increase until January 1, 1992. The revenue increases which KG&E would have received if the original phase-in were followed, and which will be foregone under the plan, amount to approximately $80 million. (Appendix, p. A17, ¶ 32)

With slight modifications, the Commission approved KG&E's plan on March 11, 1987. The permanent rates now in effect are, therefore, based upon the March 11th order, insofar as this appeal is concerned. The 1985 orders simply have no relevant legal effect on KG&E's current rates, having been superseded in all material respects by the March 11, 1987 order. Although the 1985 order made many determinations on various cost of service components, such as operation and maintenance expense and decommissioning costs, which are reflected in current rates, there is no dispute between the parties concerning the lawfulness or reasonableness of those findings. Rather, it is the 1985 treatment of Wolf Creek capital costs which is the focus of KG&E's appeal. That treatment, however, is no longer in effect. Thus, continued Court review of the 1985 Wolf Creek order would have no effect on KG&E's rates, and would not be in the interest of judicial economy.

It may be argued by Appellant that this case is not moot because it represents an issue capable of repetition, yet evading review. *Moore v. Ogilvie,* 394 U.S. 814 (1969); *Roe v. Wade,* 410 U.S. 113 (1973) Interim utility rate orders may sometimes be superseded by permanent rate orders before judicial review is completed. However, it is not necessary in this case to address generally the question of mootness in such situations. Clearly, this is not a a situation which is capable of repetition in the normal course of events. In this instance, the specific basis for each of the issues on appeal has been completely changed by the subsequent order making rates permanent. Furthermore, the March 11, 1987 Commission order contemplates that the framework it establishes will govern the setting of KG&E rates for the remaining operational life of Wolf Creek.

As reflected in the March 11, 1987 order KG&E anticipates no future rate increases associated with Wolf Creek

capital costs other than those provided for by the plan. (Appendix, p. A11, ¶ 23) This is because the plan allows for adequate future returns on KG&E's investment. Due to the accounting, ratemaking and other changes authorized by the Commission, KG&E projects that it will earn a return on equity in the next ten years which will range between 8.69 percent to 10.39 percent. (Appendix, p. A14, ¶ 26) This projection includes return on equity associated with Wolf Creek costs which the Commission found to be imprudently incurred. (KG&E is not appealing that Commission determination.) In conjunction with the fact that KG&E stock recently sold at $23.50 a share, a ten year high, and its expected 1986 dividends are $1.40 a share, it is thus evident why KG&E's plan requires no additional rate increases. (Appendix, p. A14, ¶ 26)

The preceding facts also demonstrate that the Commission's approval of KG&E's plan has rendered moot KG&E's contentions of confiscation. The end results of the balancing of investor and consumer interests required by *Federal Power Commission v. Hope Natural Gas Company*, 320 U.S. 591 (1944), were significantly different in the Commission's March 11th order than its 1985 orders. Under the March 11th order, KG&E investor interests were substantially benefitted—albeit without a major increase in rate.[4] Perhaps most telling to the continuing vitality of KG&E's *Hope* argument, however, is the fact that the rate levels now in effect and end results of those current rates are precisely those requested by KG&E. Quite simply, the balance achieved by current rates under KG&E's plan are evidently satisfactory to the company.

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4. KG&E's plan seems to be based in large part on recognition that its rates are high and that the company's financial health is inextricably tied to making its electric service affordable and useful to consumers. (Appendix, p. A12, ¶ 24) Thus, the delays in scheduled rate increases and reduction in space heat rates are designed to avoid loss of customers.

The legally operative facts relating to KG&E's equal protection and due process claims have also changed. Both those claims arise from the Commission's valuation of Wolf Creek in the 1985 order at $1290 per kilowatt of capacity. The March 11th order, however, changed that valuation to $2376 per KW. Since that new valuation represents Wolf Creek's original prudent cost, which KG&E argues is required by the equal protection clause there is no longer an issue on that claim. Further, since the new value of Wolf Creek is at the figure requested by KG&E, there is no longer any basis for KG&E's claim that it received inadequate notice in violation of its due process rights.

CONCLUSION

KG&E's appeal to this Court is moot because the appeal was based upon an interim rate order, which has been superseded by the permanent rate order. In addition, every aspect of the original, interim order which KG&E alleges was constitutional infirm has now been changed in the permanent rate order to reach results which KG&E urged in its recent rate application. Consequently, no issue, case, or controversy exists between KG&E and the KCC.

Respectfully submitted,

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APPENDIX

(Filed March 11, 1987)

THE STATE CORPORATION COMMISSION
OF THE STATE OF KANSAS

Before Commissioners: Michael Lennen, Chairman
Margalee Wright
Keith R. Henley

In the Matter of the Application of Kansas Gas and Electric Company for Approval of a Plan to Delay or Reduce $100 Million of Approved Rate Increases, Sustain KG&E's Progress in Restoring Its Financial Health, Establish a Framework for Rate Recognition of KG&E's Prudent Investment in Wolf Creek, and Amortize KG&E's Commission Determined Imprudent Investment in Wolf Creek.	)	Docket No. 142,098-U 84-KGE-197-R
In the Matter of the Application of Kansas Gas and Electric Company Requesting that Interim Charges for Electric Service Be Made Permanent.	)	Docket No. 142,098-U 84-KGE-197-R
In the Matter of the Application of Kansas Gas and Electric Company for an Accounting Order Relating to the Amortization of AFDUC Related Tax Credits and Accounting for the Debt Component of AFUDC and Deferred Carrying Charges.	)	Docket No. 149,109-U 86-KG&E-3-A

ORDER

NOW, before the State Corporation Commission of the State of Kansas, come for consideration and determination the Applications of Kansas Gas and Electric Company (KG&E) in Docket No. 142,098-U, for approval of a plan to delay or reduce $100 million of approved rate increases, sustain KG&E's progress in restoring its financial health, establish a framework for rate recognition of KG&E's prudent investment in Wolf Creek, and amortize KG&E's Commission determined imprudent investment in Wolf Creek; a request that interim charges for electric service be made permanent; and, in Docket No. 149,109-U, an accounting order relating to the amortization of AFUDC related tax credits and accounting for the debt component of AFUDC and deferred carrying charges and, further, the motion of KG&E to consolidate Docket Nos. 142,098-U and 149,109-U.

I. *Appearances*

The following parties entered an appearance in the above captioned matters:

For the Applicant/Movant, KG&E,

Jerry R. Deaver
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Wichita, Kansas 67201-0208

For the Kansas Corporation Commission Staff and the public generally,

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For Kansas Power and Light Company:

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For the City of Wichita:

Joe Allen Lang
Office of the City Attorney of
Wichita, Kansas
Department of Law
City Hall, Thirteenth Floor
Wichita, Kansas 67202

At the hearing, the following witnesses testified:

On behalf of KG&E

Mr. James S. Haines, Group Vice President
Mr. E. D. Prothro
Mr. Earnest A. Lehman
Mr. Dick Rohlfs

On behalf of Staff

Mr. Bion C. Ostrander
Mr. Ganesh Krishnan

On behalf of Industrial Intervenors

Mr. Fred B. Adam

On behalf of Electric Shock Coalition

Ms. Mary Abbott Mills

II. *Findings of Fact and Conclusions of Law*

Having considered the evidence and testimony, the files and records, and being fully advised in the premises, the Commission finds and concludes as follows:

1. KG&E is a corporation under the laws of the State of Kansas with its principal place of business at 201 North Market Street, Wichita, Kansas. KG&E is an electric "public utility" within the meaning of K.S.A. 66-104 and is authorized to engage in the business of an electric "public utility" in the State of Kansas.

2. Notice of the above captioned applications and the Motion to Consolidate these applications and hearings were given to all parties of record and published in newspapers of general circulation in the service area. The Commission finds that notice is proper and that the Commission has jurisdiction to consider this matter.

3. KG&E filed its Application Requesting Proposed Changes in Charges for Electric Service in Docket No. 142,098-U on November 8, 1984. That Application requested an increase in KG&E's rates to cover a test year revenue deficiency of $373,427,835, principally due to the commercial operation of the Wolf Creek Generating Station (Wolf Creek), of which KG&E owns a 47 percent interest.

4. After lengthy technical and public hearings, the Commission issued Orders in Docket No. 142,098-U on September 27 and November 15, 1985 (Wolf Creek rate Orders). In those Orders, we determined that KG&E's 1985 test year revenue deficiency was $169.6 million, before fuel savings estimated to be between $25 million and $28 million, and ordered that a corresponding increase be phased into rates in four steps, as follows:

Year	Amount (Millions)	% Increase
1985	$135.00	37%
1986	20.0	4
1987	14.6	3
1988	15.6 (5 years to cover deferred phase-in revenues)	3

5. The first increase became effective on October 3, 1985 and the second increase became effective on September 27, 1986. Both increases went into effect on an interim basis and, with its July 25, 1986 Application Requesting That Interim Charges For Electric Service be made Permanent in Docket No. 142,098-U, KG&E has requested that such increases be made permanent.

6. In our September 27, Wolf Creek rate Order, we recognized that granting KG&E less than it requested could have a serious impact on KG&E's financial health.

7. In response to the Wolf Creek rate Orders, KG&E took a number of cost saving measures. KG&E cut its common dividend in half, eliminated 200 jobs, cut 20 percent of its construction budget, froze officers' salaries, eliminated management incentives, greatly reduced civic and charitable contributions, curtailed involvement in industry and professional associations, and initiated cost control measures over many expenditures not necessary in providing direct customer service. Additionally, KG&E has engaged

in extensive refinancing to both lower its embedded cost of debt and retire a majority of its preferred stock.

8. While KG&E's cost cuts and economic refinancings have lessened the financial impact of the Wolf Creek rate Orders, KG&E believes that these changes have not established sustainable progress toward the restoration of its financial health. Toward that end, in Docket No. 149,109-U, KG&E asked the Commission to approve two accounting changes which would improve KG&E's financial condition without an immediate need for a rate increase. KG&E sought Commission approval to (a) accelerate the amortization of construction related tax credits to an eight year schedule, rather than over the entire depreciable life of the property which gave rise to the credits, and (b) capitalize the deferred carrying charges that the Commission permitted with respect to KG&E's physical excess capacity in Wolf Creek using a before tax (gross) rate of return for preferred stock and long term debt rather than the current net of tax rate.

9. Our March 12, 1986 Order in Docket No. 149,109-U approved the accelerated amortization of construction related tax credits, while deferring action on the proposal dealing with deferred carrying charges.

11. KG&E has also acted to retain its existing sales base by negotiating to prevent the loss of major customers for whom, during the present period of time when KG&E has a large surplus of generating capacity, cogeneration presents a cost savings opportunity at the expense of other customers. Significantly, KG&E has made no effort to shift to other classes of customers the revenue shortfall which has resulted from the negotiation of special rate contracts. Such shortfall, which has been reasonably estimated to be $4 million over the 5-year term of the contracts,

is material and it diminishes the beneficial impact of the steps KG&E has taken to improve its financial situation.

12. On December 9, 1986, KG&E filed an Application in Docket No. 142,098-U in which it requested approval of a Plan which it contends will permit continuation of its efforts to improve its financial condition while permitting customers to save approximately $100 million over the next five years. KG&E describes the Plan as having four interdependent components: (a) approximately $100 million of delays in previously granted rate increases and reductions in certain rates to enhance the economic viability of KG&E's service territory and efficient use of KG&E's generating facilities, (b) a basis to sustain KG&E's progress in restoring its financial health, (c) a specific framework for the rate recognition of KG&E's prudent investment in Wolf Creek, and (d) amortization of KG&E's imprudent investment in Wolf Creek. At hearing, Mr. Deaver requested and was granted leave to make three oral amendments to KG&E's December 9 Application.

13. KG&E's proposed Plan depends on an approximate $800 million stream of income in excess of premium expense which KG&E expects to receive over the next 40 years as the owner and beneficiary of life insurance policies on 82 of its directors, officers and key employees. KG&E states that the life insurance policies will be funded entirely by KG&E's shareholders. KG&E proposes to combine this stream of income with utility operating revenue to cover its jurisdictional cost of service in Kansas, including a return on its prudent investment in Wolf Creek.

14. KG&E states that its Plan will permit a delay from September 27, 1987, to January 1, 1989, of the third increase approved in the Wolf Creek rate Orders. A pending issue before the Commission in Docket No. 142,098-U

at the time the KG&E application was filed was whether it was reasonable and prudent for KG&E to retire its Ripley Station. KG&E requests that the revenue impact of this issue be added to the third increase, as delayed. Under its Plan, KG&E also proposes a delay from September 27, 1988 to January 1, 1992 the fourth increase approved in the Wolf Creek rate Orders. That increase was approved as a temporary five year increase, and KG&E has requested that it be approved as a permanent increase. Under KG&E's Plan these delayed third and fourth rate increases would be approved now, and become effective on a permanent basis on January 1, 1989, and January 1, 1992, respectively, and to be spread on an equal percentage basis to each component of each rate schedule. KG&E believes that these proposed delays, if adopted, would save KG&E's customers approximately $80 million over the next five years. KG&E believes the remaining $20 million of customer savings over the next five years would come from the proposed reduction to 5¢ of its current rate of 7.14¢ per KWH for residential and farm electric space heating customers' usage above 500 KWH per month during the non-summer months (all months except June, July, and August). We note that KG&E suggested at hearing that its December 9, 1986, Application understates the customer savings from this proposed reduction. The company contends that the savings over the next five years is more likely to be $27 million, as the annual savings are expected to be $5.4 million.

15. KG&E states that the viability of its Plan requires that it be permitted to retain the benefits of its cost-cutting measures, economic refinancings and the savings due to the new federal tax law. Further, KG&E requests that the Commission reconfirm one accounting change and authorize two others: (a) accelerate to eight years the amortization of construction related tax credits,

as already approved in our March 12, 1986 Order in Docket No. 149,109-U, and (b) accrue carrying charges on the portion of Wolf Creek which constitutes physical excess capacity at KG&E's 4.91 percent before tax (gross) weighted cost of debt rate applied to KG&E's investment of $2,376 per KWH with this accrual to cease December 31, 1991, and capitalize an 11.995 percent before tax (gross) return on deferred phase-in revenues, with such accruals to be amortized on a sinking fund basis over Wolf Creek's remaining depreciable life, and (c) extension of Wolf Creek's depreciable life to 40 years for a composite annual depreciation rate of 2.61 percent for its share of Wolf Creek.

16. KG&E's December 9, 1986, Application in Docket No. 142,098-U also restated KG&E's July 25, 1986, request that the first and second increases under the Wolf Creek rate Orders, presently in effect on an iterim basis, be made permanent.

17. KG&E also requests that it be permitted to amortize over five years the $6.4 million deferred asset which represents the allowed costs of operating Wolf Creek from the commercial service date to the effective date of the Wolf Creek rate Orders.

18. KG&E's Plan further would have us find, under the methodology of the Wolf Creek rate Orders, that the excess portion of KG&E's Wolf Creek capacity currently is 269 MW and that KG&E estimates this excess should be reduced by 53.8 MW on January 1 each year from 1988 through 1992, so that KG&E would stop accruing deferred carrying charges on excess capacity by December 31, 1991, and then begin amortizing the accrued charges by January 1, 1992. KG&E has also proposed that if we later determine the retirement of Ripley Station to have

been reasonable, the amount of excess capacity should be reduced by 46 MW to 223 MW and the annual reduction should be 44.6 MW.

19. Under its Plan, KG&E would accrue deferred phase-in revenues with carrying charges based on an 11.995 percent before tax (gross) rate of return, compounded semi-annually, until such time as the delayed third rate increase becomes effective, and then accrue the carrying charges on accumulated deferred phase-in revenues until the delayed fourth rate increase becomes effective. At that time the amortization of the accruals on a sinking fund basis over Wolf Creek's remaining depreciable life would begin.

20. Finally, KG&E's December 9, 1986 Application in Docket No. 142,098-U requests that we permit KG&E to amortize above the line, in cost of service, and over Wolf Creek's remaining depreciable life the undepreciated portion of the $128 million of KG&E's investment in Wolf Creek which we have found to be imprudent, and then find that the Plan permits rate recognition of KG&E's investment in Wolf Creek beginning January 1, 1992.

21. Due to the interrelationship of the accounting authority requested by KG&E in Docket No. 149,109-U and the Plan set out in KG&E's December 9, 1986, Application in Docket No. 142,098-U, we find that it is appropriate and reasonable to consolidate Docket No. 149,109-U with Docket No. 142,098-U.

22. The KG&E Plan contains many elements, which are each addressed below. Although we approve of each of the Plan's individual elements with some modifications, it should be noted at the outset that many of those elements, standing alone, would likely not normally receive

Commission approval. It is only within the context of the total Plan that we sanction all the separate components. As discussed below, each element of the Plan has real or potential benefits or detriments for ratepayers. Indeed, many elements have effects which vary over time so that they cannot be characterized as wholly beneficial or detrimental to ratepayers. For example, the accounting changes decrease the costs of service during the early years of the Plan, but increase them in later years. On the other hand, the income from the life insurance policies will not be significant in the early years of the Plan, but increase gradually to over $30 million in the later years. Because the effects of the individual elements of the Plan vary over time, so do the net combined effects. In any given year, of course, the net effect of the Plan can be determined, but we have focused more on the totality of the Plan and its potential benefits for both ratepayers and KG&E.

23. The primary benefits of KG&E's Plan, from the perspective of ratepayers, is the deferral of already authorized rate increases, a rate decrease for space heat customers and the likelihood of no additional rate increases related to Wolf Creek capital costs other than those provided for by this order. This Plan contemplates only one rate change which was not explicitly envisioned by our original Wolf Creek orders, the $15.6 million fourth step permanent increase, which was originally to terminate after five years once carrying costs on deferred phase-in revenues were recovered. As noted below, however, the continuation of the rate increase in 1998 may well be justified by greater need for Wolf Creek capacity in any event. In fact, greater or additional rate increases due to changes in circumstances expressly contemplated in our original order, such as capacity additions or a valuation

adjustment, would be a real possibility. However, the Plan would permit ratepayers to avoid such rate increases. As Mr. Haines testified, ". . . the Plan permits rate recognition by January 1, 1992, of KG&E's prudent investment in Wolf Creek such that, assuming reasonable circumstances, no further rate increases will be needed as the amount of Wolf Creek considered to physically excess is reduced or as coal capacity, becomes more expensive." (Haines, Tr. 61). Not only does the Plan forestall indefinitely rate increases due to Wolf Creek capital costs, but also delays for a significant time the need for rate increases due to other cost increases. As stated by KG&E witness Haines, the Plan provides "a very good probability" that no rate increases would be necessary in the next five to ten years for increases in costs of service other than Wolf Creek. (Haines, Tr. 113).

24. The delays in previously scheduled rate increases and the reduction in the space heat rate obviously provide real benefits to rate payers but they are also beneficial to KG&E. Thus, Mr. Haines explained the proposed rate delays and reduction as KG&E recognition "that its health is inextricably tied to the health of its service territory. Economically efficient use of KG&E's generating facilities results from making KG&E's electric service affordable and useful." (Haines, Tr. 53). The Commission continues to be concerned about the level of KG&E's rates. KG&E, along with KCPL, have by far the highest rates in Kansas of a generating utility and the highest retail rates of an investor owned utility. Furthermore, those rates are significantly above the normal average. It was thus not surprising that KG&E witness Lehman stated that KG&E's principal means of encouraging conservation is through its "overall rate level, which is high." (Lehman, Tr. 337). Although Mr. Lehman was being partially facetious, it is

a fact that KG&E's rates are high. It is encouraging that KG&E now recognizes the need to keep rates reasonable, not only for the sake of ratepayers but also for the good of the company. The possibility of real rate stability with limited future rate increases consequently leads us to conclude that the Plan as a whole is acceptable.

25. Before turning to the individual elements of the Plan, we should further address some of the overall concerns about the Plan. Because of the requested treatment of Wolf Creek capital costs and the requested accounting charges, KG&E's revenue requirements under traditional rate making would theoretically increase in the future. KG&E, however, asserts that any and all such increases would be covered by the income from the insurance policies. Because the projected income of $800 million is a net of tax amount, it will supplant a much greater incremental amount if analyzed in terms of revenue requirements. It is this feature of the Plan which allows for the promised rate stability and further persuades the Commission to allow retention of the income tax and other cost reductions. Without such long term contributions from the shareholders, it would be inequitable for ratepayers to totally forego the benefits of the income tax and other cost reductions, while also facing ratemaking and accounting changes which theoretically increase future revenue requirements. KG&E witness Haines also responded to staff concerns about the large revenue requirements created by the Plan. He noted that KG&E's earnings under the Plan are better than under conventional ratemaking treatment. Furthermore, he stated that KG&E could not automatically come in and obtain conventional rate recognition of 100 percent of its prudent investment in Wolf Creek and the Plan was approved. "When the reasonable rate doctrine is considered, it is very probable that at least

over the next 10 years, KG&E would not be permitted to charge any higher rate with the Plan than without it." (Haines, Tr. 476-77).

26. The other threshold question before the Commission is whether KG&E does, in fact, require its requested changes in order to "restore its financial health." We noted previously that KG&E has taken several measures to reduce its costs in order to cope with our 1985 orders. However, the record indicates those orders have not had consequences as dire as predicted by some. KG&E stock has recently been selling at $23.50 a share, a ten year high. Although the expected earnings per share for 1986 is around $1.40, down from $2.13 in 1985 due to cessation of AFUDC, KG&E believes that "Relative to where we were a year ago, we're certainly doing quite well and we are pleased with that." (Haines, Tr. 74). Nonetheless, the Commission does agree that improvement in KG&E's financial picture is desirable for all concerned if it can be accomplished at a reasonable cost to ratepayers. Indeed, the Commission has previously taken a step in that direction in approving the accelerated amortization of construction related tax credits. Under the KG&E Plan, the company projects that it will be able to earn a return on total equity, including equity associated with Wolf Creek costs found to be imprudent, which will range between 8.69 percent and 10.39 percent for the ten years period of 1986 through 1995. KG&E suggests that these are "minimally adequate" returns but also notes that it is exploring other mechanisms, such as a sale-lease back arrangement, which will further improve its situation. Although the Commission would not necessarily agree that those projected returns are "minimally adequate," especially since they include a return on imprudent investment, we do agree that there should be no need for further

rate increases related to Wolf Creek capital costs with such returns.

27. The first individual element of the Plan is the life insurance plan. KG&E will be permitted to combine its projected $800 million stream of income from corporate owned life insurance over the remaining life of Wolf Creek with utility operating revenue to cover KG&E's Kansas jurisdictional cost of service, including a return on KG&E's investment of $2,376 per KW in Wolf Creek. Some questions were raised concerning the amount KG&E would actually receive, as well as the certainty of KG&E actually receiving the $800 million over the next 39 years. Witnesses for KG&E testified that this is a conservative or worst case projection. Indeed, Mr. Prothro testified that under more favorable assumptions, KG&E could receive as much as a billion dollars. A potential significant risk, according to KG&E, is a change in federal tax laws which would adversely affect the insurance policies, although we note that tax law changes have traditionally been prospective in nature, as opposed to retroactive in nature. The utilities we regulate are always subject to the risk of future laws which would upset previous assumptions concerning cost of service. However, in view of the potential benefits to customers and shareholders of KG&E, we consider this risk to be reasonable. Consistent with its proposal, KG&E is directed to fund the corporate owned life insurance exclusively with shareholder funds. Normally it is not permissible to combine income from shareholder funded, non-utility assets with utility operating revenue to cover the cost of providing regulated utility service. In this case, however, we find that it is appropriate because KG&E has requested such treatment, and KG&E's shareholders will benefit from other aspects of the Plan.

28. KG&E is permitted to delay from September 27, 1987 to January 1, 1989 the third increase previously approved in the Wolf Creek rate Orders. In a separate Application in Docket No. 142,098-U, the Commission has determined that it was reasonable and prudent for KG&E to retire its Ripley Station. The Commission directs that the revenue impact resulting from the Ripley retirement be added to the third increase and become effective on a permanent basis on January 1, 1989, with one condition. KG&E also requested that such incremental revenue impact be accounted for from September 27, 1985, until January 1, 1989, as deferred phase-in revenues. Although we found the Ripley retirement was reasonable, the evidence does not support this aspect of KG&E's Plan. KG&E's actual normalized peak in 1986 was 40 MW below its forecasted peak. Consequently, we cannot find that it is reasonable to permit KG&E to accrue deferred phase-in revenues for an additional 46 MW of Wolf Creek to balance the loss of 46 MW from Ripley. At the same time, it is reasonable to assume that KG&E's need for Wolf Creek, whether from peak growth or reduced overall generating capability, will have grown by 41 MW from 1986 to 1988 so as to justify adding the incremental revenue impact to the January 1, 1989, increase. Also, as a condition precedent to the inclusion of revenues associated with the Ripley retirement in the January 1, 1989, rate increase, we direct the company to show the Commission that this demand growth or reduced overall generating capacity has occurred. Additionally, the revenue impact should be determined using an overall cost of capital equal to KG&E's rate of return on deferred revenues as of January 1, 1989, as set forth in paragraph 31, and should reflect Wolf Creek's accumulated reserve for depreciation as of January 1, 1989.

29. KG&E has requested the authority to delay from September 27, 1988 to January 1, 1992, the fourth increase of the phase-in approved in the Wolf Creek rate orders. When both the third and fourth increases are delayed, KG&E customers will save approximately $80 million. This particular portion of KG&E's plan is definitely beneficial to ratepayers. KG&E is permitted to delay the fourth increase, as requested.

30. KG&E's request to spread the third and fourth increases on an equal percentage basis to each component of each rate schedule is approved as being fair and reasonable. This method of rate design is consistent with the previous Wolf Creek Orders, and staff did not object to this method of spreading these increases.

31. KG&E is directed to capitalize the delayed revenue increases and a rate of return on such deferral using the before tax (gross) method. The rate of return on deferred revenues shall reflect KG&E's actual weighted cost of debt and preferred as determined annually from its official annual report to the Commission (Form No. 1). The authorized return on common equity will remain at 15.5 percent. The return on deferrals shall be compounded semi-annually. Staff witness Mr. Ostrander testified that the September 27, 1985 Order in Docket No. 142,098-U does not permit semi-annual compounding. While we tend to agree with staff that the language of the Order at paragraph 8 on pages 133 and 134 does not permit semi-annual compounding, we can understand the company's belief that the language is ambiguous. However, the only question before us today is whether KG&E may semi-annually compound the deferrals. We hereby grant specific authority for KG&E to do so.

32. KG&E, in its application, requests that it be permitted to place the third and fourth increases of the

phase-in of the Wolf Creek rate order into effect on a permanent basis. The Commission notes at the outset that it is normally hesitant to grant permanent rate increases such as the increases contemplated by KG&E's Plan, on a prospective basis. In the regular rate making setting such a prospective treatment normally includes a great deal of speculation due to the nature of the future. However, it should be noted that as part of the original Wolf Creek Order, the Commission has already granted the third and fourth phase-in steps on a interim basis. Indeed, the Commission approved the interim steps to become effective in 1987 and 1988. The Commission notes with approval the company's plan to delay these increases until 1989 and 1992. The Commission believes that these deferrals are a true benefit to the consumers of KG&E's services. Both staff and the company seem to agree that the benefit of the delays in the third and fourth rate increases will result in a savings to KG&E customers of the magnitude of $80 million. Thus, in light of the delay that KG&E is willing to accept in delaying the increases in balance with other portions of the plan, the Commission believes it is reasonable to allow KG&E to file tariffs showing that the third and fourth phase-in increases are permanent increases. However, we note by this action that we have not foreclosed the possibility of further challenge to the third and fourth increases. Nor is our action inconsistent with the possibility that at some point after the increases become effective that it would be appropriate to examine the reasonableness of KG&E's earnings. Indeed, it is likely that the Commission will wish to review this aspect of the plan in the latter part of the next decade. If no earlier action is necessary, any customer of KG&E, as well as the Commission staff, is always free to file a complaint alleging that KG&E's rates are unreasonable. It should be noted, as stated in other parts of this order, that the Commission

believes the increases should be spread on an equal percentage basis to all components of each rate schedule.

33. KG&E, through Mr. Lehman, presented evidence which suggests that, at its present rate of 7.14¢ per KWH for residential and farm electric space heating customer's usage above 500 KWH per month during non-summer months (all months excepting June, July and August), KG&E will gradually lose space heating load. Thus in the instant application, KG&E has proposed to reduce its residential and farm space heating rate from the current 7.14¢ to 5.00¢ per KWH for all KWHs in excess of 500 KWHs. In addition, KG&E has indicated that if its proposed reduction is approved, it will not seek to recover the short run revenue loss from other customers. However, if the proposed reduction is not approved, KG&E believes that over the next ten years the loss of revenues and market share will grow to significant levels.

KG&E's evidence at hearing showed that the proposed reduction to 5¢ per KWH would result in a revenue loss of approximately $5.4 million in the first year of reduction, but within 6 to 7 years would result in greater revenues than would have been produced had the 7.14¢ per KWH rate remained in effect. The Staff, through its witness Dr. Krishnan, found substantial problems with the method and model used for estimating KG&E's revenue loss by Mr. Lehman. Dr. Krishnan found that in the econometric model used by KG&E one of the variables, specifically the gas-to-electric price ratio variable, was not statistically significant and in no way furthered the econometric model's reliability. Indeed, Dr. Krishnan testified that the gas to electric price ratio variable was statistically insignificant. Additionally, Dr. Krishnan believes that the perfect inelasticity of demand contained within the econ-

ometric model was an unrealistic assumption. While we find that Staff's evidence as to the econometric model to be reasonable, we note that KG&E's willingness to forego recover the short-run revenue loss from other customers, and in effect underwrite that loss itself, is a significant factor in favor of this particular component of the Plan. Thus, the Commission finds that the reduction in space heating rate to 5.00¢ per KWH reasonable. But, the Commission recognizes that the proposed cut-off of 500 KWH is, in reality, a substitute for accurate metering. A more realistic cut-off figure above which the space heating rate would apply in 650 KWH. Therefore, for all residential consumers who are eligible for the space heating rate, the cut-off will be 650 KWH. However, an exception shall be all-electric apartments. Apartments average a lower kilowatt per hour use, and therefore the space heating cut-off for apartments should be set at a lower rate, 500 KWH. Therefore, the space heating rate reduction is approved, and the reduction will be allowed for usage over 650 KWH for residential, and 500 KWH for residential apartments.

The Commission also recognizes the lack of specific use data on space heating, and further, that the cut-off levels as specified do not reflect precisely space heating use. The lack of accurate metering is a problem when implementing targeted-use rates. Therefore, an investigation shall be commenced by the Commission to look at the benefits of separate metering. Also, the specific usage information on space heating shall be gathered by KG&E, and the cut-off levels re-evaluated in the above referenced investigation.

34. The Commission has a number of other concerns of a general nature with the reduction of the space heating rate. The Commission notes that in reducing the

rates the company has set out on a plan that could be construed as being contrary to long term planning and conservation. This Commission and the company have a significant interest in the long term planning and conservation of utility resources in Kansas. It is understandable that KG&E plans to aggressively market their product and try to sell more electricity. Indeed, growth may be a desirable goal. However, it appears that KG&E's goal extends past space heating; it wishes to increase the number of all electric homes and apartments. (KG&E Servicegraph, Vol. 52, Issue 12, Dec. 1986). While this goal is understandable, it makes the Commission's role as overseer of the public interests even more important. Thus, the Commission believes that it must mandate conservation and load management goals as a part of this docket. We must make sure that the growth that does occur is efficient, planned growth. It is important that the approval of the space heating rate be seen for what it is; an attempt to target a specific use of electricity that will increase off-peak load, and therefore overall efficiency. The Commission wishes to specifically note that its space heating findings in this docket is not a signal for any utility to unreasonably market its product which would ultimately increase its peak demand.

35. As part of its Plan, KG&E has requested that it retain the benefits resulting from its cost cutting measures. KG&E, through Mr. Haines and Mr. Prothro, testified that due to its own initiative KG&E has managed to save approximately $5 million dollars for 1986, on a net of tax basis. Staff, through Mr. Ostrander, testified that KG&E has "made a strong case for the proposition that it be allowed to retain the benefits of cost cutting measures that it has initiated." (Ostrander prefiled direct testimony, p. 20, line 15-18). We agree with staff, and

approve KG&E's request as to the retention of benefits from cost-cutting measures.

36. KG&E has also requested the authority to retain the benefits of economic refinancing of its debt and preferred stock charges. KG&E states that it has aggressively taken advantage of declining interest rates so that the company has saved approximately $20 million. Staff, through Mr. Ostrander, took the position that these savings are not the result of particularly innovative or creative actions of KG&E, but merely the result of federal policy initiatives. Traditionally, this Commission has believed that absent compelling rationales, savings due to declining interest rates should flow through to ratepayers. However, when this component of the plan is balanced against the other factors of the plan, such as the insurance revenues, rate delays and reductions and the likelihood of no further Wolf Creek related rate increases outside of this order, we find the request to retain the benefits of economic refinancing to be reasonable. However, the Commission has determined that KG&E shall update annually the cost of debt to actual which is reflected in the carrying charge and deferred revenues calculation. This matter is further elaborated on later in this order.

37. KG&E also requests the authority to retain the benefits of the 1986 Tax Reform Act. This particular provision of the plan raises important concerns for the Commission. Indeed, this Commission is initiating a generic docket which will deal with the issue of retained tax savings due to the Tax Reform Act. KG&E argues in its application and testimony that the retention of tax savings is critical to the success of the plan. Staff, in the alternative, argued that KG&E will incur no risk if the tax rates increased, while retaining all of the benefits if

tax rates decreased. Additionally, staff suggested an interesting threshold analysis which could be used in future rate cases. (Ostrander prefiled direct, p. 22-24). Traditionally, this Commission has believed that utility rates should reflect actual tax rates, not tax rates that are higher (which unduly benefit the utility) or lower (which unduly benefit the ratepayer), than actual. The Commission still believes in this policy.

However, this plan presents the issue of tax savings in a different manner. Along with the tax savings, KG&E proposes to allocate $800 million of its own revenues, and delay rate increases which will save ratepayers $80 million, and reduce the space heating rate resulting in another $20 million in rate savings to ratepayers. Additionally, KG&E maintains that it can live within the constraints of this plan so that no future Wolf Creek related rate increases will be necessary. While the tax benefit issue, if viewed in isolation seems at odds with established Commission policy when the issue is placed in context as a part of a creative, innovative plan that purports to generate significant benefits to both ratepayers and KG&E, the analysis used by the Commission, and ultimately the results reached, must be different. Therefore, as a part of this comprehensive plan, and indeed specifically conditioned upon the other rate payer beneficial aspects of this plan, the Commission approves KG&E request as it relates to tax law savings.

However, the Commission believes that any additional tax savings above those anticipated by KG&E should be considered for return to the ratepayers. Therefore, during the period 1987 through 1992, KG&E is directed to file with the Commission by April 1, of each year a report which shows the increase to its previous year's operating

income which result from benefits of the Tax Reform Act of 1986. If, during these years, the actual benefits as reported by the company and after investigation and confirmation by staff, exceed the amounts projected by KG&E (Exhibit 1, Schedule EDP-6), the excess shall be subject to refund, perhaps on a cumulative basis if the circumstances warrant. If there are any refunds, the refund shall include an interest charge using the authorized rate for consumer deposits. We would expect that an especially careful review would occur prior to the presently scheduled rate increase on January 1, 1989.

38. The Company, in its application, requests that it accrue the debt component of deferred carrying costs for the physical excess portion of Wolf Creek on a "before tax basis," and accrue carrying costs on deferred phase-in revenues on a "before tax basis." By its application, KG&E has asked that the preferred equity component of this accrual be eliminated. Additionally, the plan calls for KG&E to cease the accrual of carrying charges on excess capacity on December 31, 1991, and on January 1, 1992, begin to amortize those costs to cost-of-service using a sinking fund method over the remaining depreciable life of Wolf Creek. Further, KG&E asks the Commission to reconfirm its decision regarding accelerated amortization of construction related tax credits found in Docket No. 149,109-U. As can be readily seen, these aspects of the plan are intricate, and to a large degree merge into other aspects of the plan, specifically ratable capacity addition and a determination of the depreciable life of Wolf Creek.

The Commission does, at this time, reconfirm our earlier decision regarding construction tax credits found in Docket No. 149,109-U. We also find the KG&E request

as stated above to be reasonable and appropriate for the following reasons and with the following changes. This Commission realized when it formulated the original Wolf Creek orders that eventually the issue of amortizing the accumulated deferral cost related to excess capacity back into cost of service would have to be dealt with. Although this particular amortization mechanism was not what we had envisioned, we are pleased that KG&E has found a method to deal with this issue that does not result in an increase in rates to KG&E customers. In regard to the accrual portion of this mechanism, we find the KG&E request reasonable with two modifications. First, we find that staff's recommendation that the cost debt component be updated to accurately reflect the current cost of debt to have a great deal of merit.

Second, we find that KG&E should reflect the actual preferred cost of equity in its accrual charge. Therefore, KG&E is permitted to accrue carrying charges on the physical excess capacity portion of Wolf Creek on a before tax (gross) rate which reflects KG&E's actual cost of debt and preferred stock as determined annually from its official annual report to the Commission (Form No. 1). This accrual will cease on December 31, 1991, and on January 1, 1992, will be amortized on a sinking fund basis over Wolf Creek's remaining life.

39. When considering the comprehensive nature of the proposed Plan, KG&E's request to extend Wolf Creek's depreciable life to 40 years is reasonable. Ample foundation exists in the record of Docket No. 142,098-U to support this change. Although KG&E stipulated to a Staff proposed depreciation rate for purposes of the Wolf Creek rate case, KG&E did so without implication as to the useful life of the plant. Based on the evidence in the record,

the Staff proposal was only one of a number of reasonable approaches the Commission could have adopted. Indeed, in the Wolf Creek orders we noted that we could readdress this issue in the future, and did not foreclose the use of alternative depreciation rates. Given the design, construction and operation and maintenance of Wolf Creek, it is reasonable to find that its operating life could be 40 years. We also note that KG&E's Nuclear Regulatory Commission operating license for Wolf Creek covers a period of 40 years. KG&E is directed to establish a composite annual depreciation rate of 2.61 percent, based upon a 40 year depreciable life, for its investment in Wolf Creek.

40. KG&E is ordered to amortize over five years the deferred asset of $6.4 million representing the allowed cost of operating Wolf Creek between the commercial service date and the effective date of the Wolf Creek rate Orders. Implicit in the creation of this deferred asset was the requirement that the asset would eventually be charged back to cost of service. Under KG&E's Plan, however, the Commission finds that this asset can be amortized to the Kansas jurisdictional cost of service over the next five years without requiring additional revenue from ratepayers.

41. In the Wolf Creek rate Order, we found that KG&E had generating capacity in excess of peak plus reserve of 327 megawatts. Consequently, 327 megawatts of the capacity of Wolf Creek was found to represent excess physical capacity. In support of its application to make interim charges permanent, KG&E calculated its excess capacity to be 223 megawatts, using the methodology found in the Wolf Creek rate Orders. In those Orders, we had determined that a five year forecast period for

peak demand was reasonable given the facts that were before us, and therefore selected 1990 as the reference year for the calculation of excess capacity. KG&E used the five year forecast method of analysis in its Application for permanent rates to be consistent with the Wolf Creek rate orders and to reflect the passage of one year from the time of those Orders. Though we agree that 1991 is the proper reference year for determining KG&E's need for capacity with respect to this application, we note that KG&E's actual normalized peak demand in 1986 was 41 MW below KG&E's own forecasted peak. While KG&E's application to make interim charges permanent assumes that 100 percent of Ripley capacity is excluded, it also assumes that KG&E's actual normalized peak in 1986 would equal its forecasted peak. The 41 MW shortfall in the actual peak virtually balances the incremental 46 MW attributable to Ripley. Since we found the retirement of Ripley was reasonable, prudent, under the methodology used in the Wolf Creek rate Orders we find that the excess portion of KG&E's Wolf Creek capacity is 269 MW. Although 269 MW of excess capacity is significant, and normally would be excluded from cost of service, we believe that KG&E's plan successfully deals with our concerns. KG&E's plan calls for the ratable inclusion of capacity so that at the end of five years (December 31, 1991) KG&E would have no excess capacity attributable to Wolf Creek. Further, KG&E states that the ratable inclusion of capacity will not result in a rate increase outside of those increases granted in this order. It is interesting to note that KG&E's load forecasts show that if the Commission were to still use the five year projected load method of calculating excess capacity, all of KG&E's current excess capacity would be used by the mid 1990s. However, even with the likelihood of future load growth,

if this aspect of the plan were analyzed in isolation it would not meet the criteria established in Wolf Creek rate order. Under KG&E's plan, however, the benefits of rate stability combined with the other beneficial aspects of this plan allow the Commission to find that the reduction of excess capacity by 53.8 MW on January 1 of each year through 1991 to be reasonable. The Commission further notes that when this provision is combined with the amortization of deferred costs associated with excess capacity, a potential problem to both ratepayers and shareholders has been solved to the benefit of both ratepayers and shareholders.

42. In light of the Commission's approval of KG&E's plan for coping with the problems associated with the Wolf Creek Plant, we believe a few additional requirements are in order. There is little doubt that construction of unneeded or excessively expensive generation causes enormous difficulties for utilities and rate payers. One obvious lesson of Wolf Creek is that utilities need to aggressively pursue programs which efficiently manage the timing and need for generation. This responsibility complements the Company's obligation to provide efficient and reliable service without any lapse. This Commission has regularly expressed its belief that various Demand Side Management programs, such as conservation, time of use rates, and load management should be given equal status with Supply Side Planning. KG&E's Load Management Control Program is of particular interest to the Commission because of the significant impact it could have in lowering and controlling growth of the Company's summer peak demand. The Commission notes with approval that KG&E currently has over 5,400 residential and commercial customers participating in its load management program, providing KG&E with up to 11 MW of load management.

The Commission believes that KG&E should aggressively seek and attain its self-established corporate goal of 100 MW of peak shaving capability. We therefore require that KG&E report in writing to the Commission and staff, by December 15 of each year: (1) KG&E's existing load management capability; (2) the anticipated addition to that capability for the next year; (3) the current corporate goal, with an explanation of why it is less than 100 MW, or why it cannot be higher than 100 MW; (4) a listing of promotional/educational efforts in the past year by KG&E to let customers know the details of the load management program, as well as an update on how those efforts will be increased or perfected in the coming year; (5) the amount by which the previous year's summer peak demand was reduced through utilization of the company's load management program; (6) the estimated in-service date and estimated capacity of new plant additions over the next 10 years, and; (7) a copy of the economic analysis supporting the type of generation favored versus the reasonably available alternatives. In addition, the company shall submit by June 1 of each respective year the Load and Capability Forecast for that year. Also, the Commission encourages KGE to work with Kansas Electric Utilities Research Program (KEURP) regarding load management.

43. KG&E, in its application, requests that we revalue Wolf Creek from our previously determined value of $1290 per KW to the full cost of $2376 per KW. In the original Wolf Creek rate orders we stated that at the value of $2376, Wolf Creek was an economically inefficient and excessively expensive means of providing electricity to ratepayers. Furthermore, we found that full rate base inclusion of Wolf Creek at $2376 per KW would not reflect economic efficiency in that its generating capacity could

have been provided at a more reasonable cost to ratepayers. Thus, while we allowed full recovery of the cost of construction of Wolf Creek (except the prudence adjustment, which is analyzed in paragraph 44), we were determined to share the risk of this excessively expensive plant between shareholders and ratepayers. Therefore, we determined that while the utilities could receive a return on the value of $1290 per KW through rates, the ratepayers would not contribute to the return on the costs over $1290 per KW.

Since the determination of $1290 as the value of Wolf Creek resulted from an analysis of the relative cost efficiencies of nuclear and coal plants, we expected to revisit the issue of the value of Wolf Creek and the division of risk for uneconomical plant between ratepayer and shareholder at a later date. In the application before us, KG&E has proposed a method for dealing with the issue of value in a way that deals successfully with our concerns of risk sharing. KG&E proposes to increase the value of Wolf Creek to $2376 per KW while at the same time not requiring rate increases beyond what is contemplated in this order. Although there is no firm basis for reassessing the cost efficiencies of Wolf Creek, there is a sense in which the value of the plant has increased. Since the KG&E plan contemplates no further rate increases, it could be said the plant is more beneficial to rate payers. Further, a higher valuation will allow KG&E to improve its financial situation. Therefore, to the extent that KG&E can improve its financial situation while holding the line on rate increases, both KG&E and ratepayers benefit from the increase in value of Wolf Creek from $1290 per KW to $2376 per KW. Of course, if the predicates to the revaluation were to change (i.e., rate stabilization, benefits to ratepayers and shareholders, etc.), the analysis of this

Commission could also change. Additionally, consistent with this finding, KG&E is also permitted to accrue carrying costs on Wolf Creek's excess capacity valued at $2376 per KW.

44. In the Wolf Creek rate Orders, the Commission found that $128 million of KG&E's share of Wolf Creek construction costs was inefficiently and imprudently incurred. As part of its Plan, KG&E is now requesting an above the line amortization of its Commission determined imprudent investment in Wolf Creek over the plant's remaining depreciable life. KG&E does not seek a rate of return on the undepreciated portion of the imprudence disallowance. The Commission expressly reaffirms its finding that $128 million of KG&E's investment in Wolf Creek was inefficiently and imprudently incurred. Amortization above the line to cost of service, however, is justifiable under KG&E's Plan because it will not require increases in rates above the levels contemplated by the Wolf Creek rate Orders and this Order. As a component of this Plan, and specifically conditioned on implementation of the other aspects of this plan which are beneficial to ratepayers, KG&E will be allowed to amortize above the line the previously disallowed imprudent portion of its investment in Wolf Creek over the plant's remaining depreciable life. We note that while K.S.A. 66-128e prohibits a return on costs which we have found to be imprudent, K.S.A. 66-128c permits us to exercise discretion in allowing a return of those costs. From the ratepayers' perspective, as long as such costs do not require an increase in rates, the fact that they were originally imprudently incurred is of less significance. This, of course, is not the case if return of such costs would result in rate increases. In such an event, our prior disposition of imprudent costs would be appropriate.

45. Finally, KG&E has restated its request that the first and second increases under the phase-in plan approved in the Wolf Creek rate Orders be made permanent. In the Wolf Creek rate Orders, we found that the initial rate increase under our phase-in plan should be interim in nature until six months of actual operating results for Wolf Creek became available. More than six months of Wolf Creek operations have occurred. Mr. Prothro testified that the cost of operating and maintaining Wolf Creek during its first year of operation was approximately $77 million while the projected O & M expense utilized in the Wolf Creek rate Orders was approximately $65 million. Uncertainties about the operation of Wolf Creek and the level of Wolf Creek O & M expenses have been resolved and, therefore, it is reasonable to permit the first two increases to become permanent.

46. The Commission's findings and conclusions in this Order should not be construed as surrendering or limiting the broad authority to review and evaluate the efficiency or prudence of any actions of KG&E, as such authority is granted to it under K.S.A. 66-128, *et seq.* Nor should this Order be construed as a finding that KG&E's prudent investment in Wolf Creek will not be subject to regulatory review at any time in the future should unexpected contingencies occur in either KG&E's proposed Plan or its operations. As pointed out by KG&E in its Application, any changes or modifications to the operation of this Plan or any other increase in rates cannot be implemented without prior Commission approval.

47. It must be emphasized that our approval of KG&E's Plan is premised on no rate increases other than those set forth above. This is particularly true of the cost of service treatment afforded Wolf Creek costs but includes

all the various accounting and ratemaking elements of the plan. Although we find these requests reasonable as part of KG&E's effort to improve its financial situation without further rate increases, reconsideration of all the elements would be necessary in the event of any request to increase rates. Furthermore, in such an event, it would be incumbent on KG&E to prove the reasonableness of all elements of its cost of service. Of course, the Commission also continues to have the right to reexamine all elements of KG&E's revenue requirements should it appear that its earnings or rates are unreasonably high.

IT IS, THEREFORE, BY THE COMMISSION ORDERED AND ADJUDGED THAT:

1. KG&E is permitted to combine $800 million of its projected stream of income in excess of premium expense from corporate owned and shareholder funded life insurance with utility operating revenue to cover its Kansas jurisdictional cost of service. This cost of service includes a return on KG&E's prudent investment in Wolf Creek.

2. KG&E is permitted to:

   (a) Delay from September 27, 1987, to January 1, 1989, the third increase approved in the Wolf Creek rate Orders and will add to such increase any revenue impacts resulting from the Commission finding in Docket No. 142,098-U regarding retirement of its Ripley Station.

   (b) Delay from September 27, 1988, to January 1, 1992, the fourth increase approved in the Wolf Creek rate Orders.

   (c) Spread the third and fourth increases on an equal percentage basis to each component of each schedule.

(d) The third and fourth increases are to be permanent and spread on an equal percentage basis to each component of each rate schedule.

3. KG&E is authorized to reduced its current rate for residential and farm electric space heating customers for usage which exceeds 650 KWHs per month and for all-electric apartments, 500 KWHs per month, during the non-summer months from 7.14¢ per KWH to 5¢ per KWH.

4. KG&E is required to report in writing to the Commission and staff, by December 15 of each year: (1) KG&E's existing load management capability; (2) the anticipated addition to that capability for the next year; (3) the current corporate goal, with an explanation of why it is less than 100 MW, or why it cannot be higher than 100 MW; (4) a listing of promotional/educational efforts in the past year by KG&E to let customers know the details of the load management program, as well as an update on how those efforts will be increased or perfected in the coming year; (5) the amount by which the previous year's summer peak demand was reduced through utilization of the company's load management program; (6) the estimated in-service date and estimated capacity of new plant additions over the next 10 years, and; (7) a copy of the economic analysis supporting the type of generation favored versus the reasonably available alternatives. In addition, the company shall submit by June 1 of each respective year the Load and Capability Forecast for that year.

5. KG&E is permitted to retain the benefits of cost cutting measures, economic refinancings and the new federal tax law. If during the period 1987 through 1991 KG&E's actual increases in operating income due to the benefits of the Tax Reform Act of 1986 exceed those levels

found in Exhibit 1, Schedule EDP-6, the excess shall be subject to investigation and refund if circumstances warrant. KG&E is directed to file a report with the Commission by April 1 of each year through 1992 which shows the increase to its previous year's operating income which results from the benefits of the Tax Reform Act of 1986 when compared to the previous tax law. Such report shall be calculated and presented as requested by staff.

6. Docket No. 149,109-U is consolidated with this Docket.

7. The authority granted to KG&E in Docket No. 149,109-U to accelerate to eight years the amortization of construction related tax credits, as more fully described in that Docket, is reaffirmed.

8. KG&E is permitted to accrue carrying charges on the portion of Wolf Creek which the Commission finds constitutes excess physical capacity. Such accrual will be at KG&E's before tax (gross) cost of debt and preferred stock adjusted annually and shall be applied to KG&E's investment of $2,376 per KWH.

9. KG&E is permitted to accrue deferred phase-in revenues at a before tax (gross) rate until the delayed third rate increase becomes effective on January 1, 1989. KG&E is also permitted to accrue carrying charges on these accumulated revenues until the delayed fourth rate increase becomes effective on January 1, 1992. The carrying charges are to be based on a 15.5 percent cost of equity and KG&E's actual cost of debt and preferred stock adjusted annually. These carrying charges are to be compounded semiannually. KG&E is not permitted to accrue deferred phase-in revenue related to the incremental impact of Ripley's retirement.

10. KG&E is permitted to cease accrual of all deferrals and carrying charges on December 31, 1991, and thereafter amortize the deferrals and carrying charges on a sinking fund basis over Wolf Creek's remaining depreciable life.

11. KG&E is permitted to extend Wolf Creek's depreciable life to 40 years and to establish a composite annual depreciation rate of 2.61 percent for its share of Wolf Creek.

12. KG&E's previous Application requesting that interim charges for electric service be made permanent in this Docket is approved.

13. KG&E is permitted to amortize over the next five years the deferred asset of $6.4 million representing the allowed cost of operating Wolf Creek during the period beginning with the commercial service date and ending with the effective date of the Wolf Creek rate Orders.

14. Under the methodology of the Wolf Creek rate Orders, KG&E's excess physical capacity in Wolf Creek is 269 MW. Beginning January 1, 1988, such excess shall be reduced consistent with the findings of this order.

15. KG&E will be permitted to amortize the undepreciated portion of the $128 million of its investment in Wolf Creek previously determined by this Commission to be imprudent. The amortization period will be Wolf Creek's remaining depreciable life.

16. KG&E's Plan permits rate recognition of KG&E's investment in Wolf Creek beginning January 1, 1992.

BY THE COMMISSION IT IS SO ORDERED.

Lennen, Chm.; Wright, Com.; Henley, Com.

Dated: March 11, 1987

/s/ Judith McConnell
Judith McConnell
Executive Director

SEAL
RLB:rh

ORDER MAILED MAR 11 1987

TRANSCRIPT OF HEARING

(Docket Nos. 142,098-U and 149,109-U)

* * *

Q. Mr. Haines, and I will, as Mr. Moline did, acknowledge that this is perhaps outside the scope of your rebuttal testimony, but it occurred to me this afternoon that during your testimony the Writ of Certiorari you filed with the United States Supreme Court was not discussed. What's the effect on your appeal of the Commission's order if the plan is approved?

A. My belief is that there is no effect. I'm sure that counsel for the Commission will consider the possibility of a different position.

Q. Well, then, would I be correct, then, in assuming that if you got relief from the United States Supreme Court, you would feel that you could come back to the Commission for relief, then, immediately?

A. No.

Q. Is that another quantifier on the plan?

A. No, it isn't and it never has been. We have said publicly right from the start that our appeal of the Wolf Creek rate orders would not change or alter the strategy that we have been following to attempt to re-establish our financial health.

Q. Okay, thank you.

A. Whether we fail or succeed.

MR. IRBY: Thank you, no further questions.

* * *

Supreme Court, U.S.
FILED
APR 23 1987
JOSEPH F. SPANIOL, JR.
CLERK

No. 86-781

IN THE

Supreme Court of the United States

OCTOBER TERM, 1986

KANSAS GAS AND ELECTRIC COMPANY,
Appellant,

v.

STATE CORPORATION COMMISSION
OF THE STATE OF KANSAS,
Appellee.

On Appeal from the Supreme Court of Kansas

APPELLANT'S REPLY TO MOTION TO DISMISS FOR LACK OF CASE OR CONTROVERSY

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April 23, 1987

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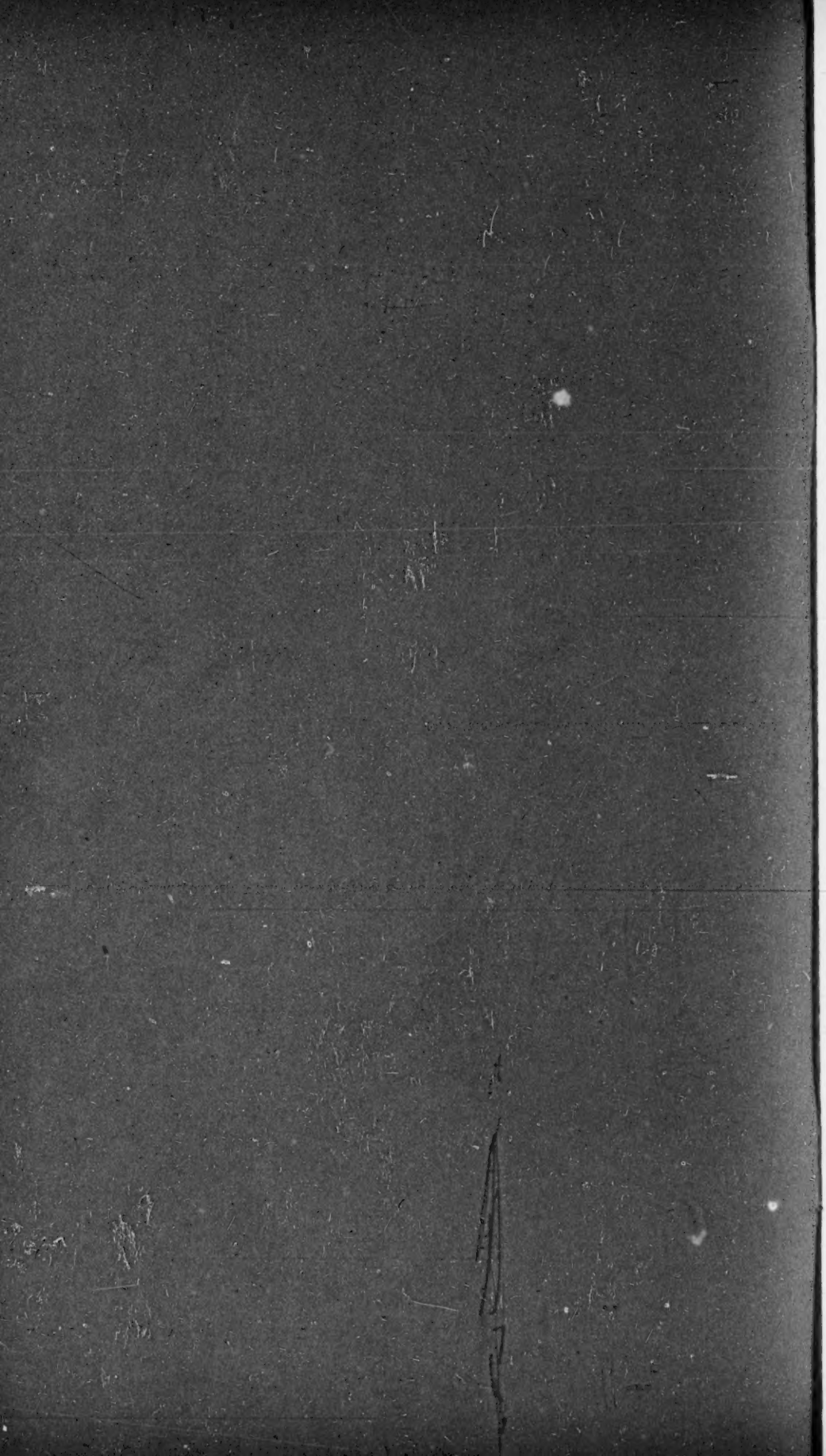

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APPELLANT'S REPLY TO MOTION TO DISMISS FOR LACK OF CASE OR CONTROVERSY

On April 13, 1987, Appellee filed a motion to dismiss this appeal for mootness or lack of a case or controversy. For the reasons set forth below, the Court should deny that motion, hear oral argument and decide this case on the merits.

BACKGROUND

On September 27, 1985, the State Corporation Commission of the State of Kansas (KCC) issued a rate order (1985 Order) setting rates for Kansas Gas and Electric Company (KG&E) to reflect the addition to rate base of KG&E's new nuclear plant, the Wolf Creek Generating

Station (Wolf Creek). The 1985 Order granted only a portion of the rate increase requested by KG&E. In setting rates, the KCC disallowed significant portions of KG&E's prudent investment in Wolf Creek because it found those amounts represented physical and economic excess capacity. The KCC's "economic excess capacity" disallowance was achieved by valuing Wolf Creek at $1290/kW, instead of its prudent net original cost of $2376/kW. As a result of the KCC's disallowances, it denied KG&E a current return on 78 percent of its prudent investment in Wolf Creek.

KG&E appealed the 1985 Order to the Kansas Supreme Court arguing that the end result of the Order was confiscatory in violation of the Fifth and Fourteenth Amendments to the United States Constitution and that the arbitrary use of an economic value for only Wolf Creek was a violation of KG&E's Fourteenth Amendment right to equal protection. The Kansas Court affirmed the 1985 Order and KG&E appealed the case to this Court.

During the pendency of the appeals, KG&E took numerous steps to mitigate the devastating effects of the 1985 Order. It reduced the dividend on common stock by 50 percent, eliminated 200 jobs, froze officers' salaries, reduced civic and charitable contributions and refinanced a large portion of its outstanding debt. As a result of these steps, KG&E was able to continue its operations with a very small profit margin.

On March 11, 1987, the KCC issued a subsequent rate order (1987 Order) dealing with KG&E's investment in Wolf Creek. This Order, which since has become final, did not set higher rates for KG&E, but instead changed the valuation of Wolf Creek for ratemaking purposes and made permanent the rates established in the 1985 Order.

In the 1987 Order, the KCC valued Wolf Creek for ratemaking purposes at its full prudent net original cost of $2376/kW instead of the $1290/kW "economic valua-

tion" used in the 1985 Order. The KCC did not find the valuation it used in the 1985 Order erroneous and has never repudiated the use of an economic valuation method. Rather, the major inducement for the KCC to revalue Wolf Creek was a plan proposed by KG&E that would avoid increasing rates to customers as a result of the revaluation. Under KG&E's plan, the KCC would revalue Wolf Creek at its prudent net original cost and, in return, KG&E agreed to combine with its utility operating revenue an $800 million stream of income from nonutility property purchased by shareholders.[1] As a result KG&E's rates will remain essentially the same.

ARGUMENT

Appellee contends that the 1987 Order renders the present appeal moot because the 1987 Order grants KG&E "virtually all" the relief requested (Motion at 3), and therefore no "issue, case, or controversy exists between KG&E and the KCC" (Motion at 8). The 1987 Order does not render this case moot. KG&E continues to suffer injury from the 1985 Order which this Court should address. Further, even if the 1987 Order provided a complete remedy, this case falls into an exception to the mootness doctrine. Given the possibility that the KCC will repeat the use of the valuation method in the future, the Court should hear this appeal.

A. KG&E Continues to Suffer Injury

As will be discussed in greater detail in KG&E's brief on the merits due to be filed with the Court on May 9, 1987, KG&E's appeal presents two major issues. These issues arise out of the valuation method used by the KCC in its 1985 Order. First, KG&E contends that as a result of the valuation of Wolf Creek at $1290/kW, KG&E received a return on its prudent investment so low that it

---

[1] Normally earnings from such property would benefit only shareholders.

constitutes confiscation of KG&E's property without just compensation. Second, KG&E argues that the valuation method used by the KCC resulted in a discriminatory classification that violates KG&E's equal protection rights. Although the 1987 Order changes that method, KG&E continues to suffer injury from the 1985 Order.

The KCC correctly points out that the valuation method for Wolf Creek imposed in its 1985 Order was superceded in the 1987 Order. The valuation method adopted in 1985 is no longer in effect. Valuation of Wolf Creek at $1290/kW, however, was in effect from the issuance of the original Order on September 27, 1985, until March 11, 1987, when the new Order was issued.

KG&E suffered significant injury during that period. First, as a result of the valuation, KG&E's rates in effect from September 1985 to March 1987 were such that the return to KG&E's shareholders resulted in confiscation of KG&E's property without just compensation. The 1987 Order does not provide for collection of this past confiscation. Second, KG&E's financial health was placed in serious jeopardy. As discussed above, KG&E took drastic steps to recover its financial health. For example, immediately after the 1985 Order, KG&E reduced the dividend to common shareholders by one-half and refinanced a large portion of its debt. In doing so, KG&E has been forced to pay higher interest rates than if the KCC had valued Wolf Creek properly. These higher interest rates will continue to injure KG&E into the future.[2] Third, to persuade the KCC to revalue Wolf Creek in the 1987 Order, KG&E made several major concessions concerning

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[2] KG&E has not requested relief in the form of retroactive rates to compensate for the past confiscation or the actions taken to restore financial health. Nonetheless, those injuries have occurred and provide an example of the harm that KG&E is threatened with if the KCC returns to the valuation method used in the 1985 Order. Such an action by the KCC would require KG&E to begin this appeal process once again.

its investments. For example, to help keep rates at the current level, KG&E agreed to combine with utility operating revenue income from nonutility property purchased with shareholder funds. Fourth, because the KCC has never repudiated its "economic valuation" method, KG&E continues to be threatened by the possible future imposition of the valuation used in the 1985 Order. This threat continues to cloud KG&E's financial outlook and makes the task of obtaining financing more expensive and more difficult. These injuries were not redressed by the 1987 Order and therefore review by this Court is necessary.

B. Exceptions to the Mootness Doctrine

This Court has developed two related doctrines dealing with the possibility of future harm to a party. First, if a controversy is capable of repetition, yet evades review, this Court will decide the case instead of finding it moot. *Southern Pacific Terminal Company v. Interstate Commerce Commission*, 219 U.S. 498 (1911). Likewise, a reasonable expectation that the complaining party again will be subjected to the challenged conduct despite the defendant's voluntary cessation of the conduct pending full litigation of the issues provides a reason for this Court to decide the case. *United States v. W.T. Grant Company*, 345 U.S. 629 (1953). Both of these principles apply to the present case.

1. Capable of Repetition, Yet Evading Review

The 1985 Order challenged in this appeal is capable of repetition. The KCC has continuing jurisdiction over the rates set for KG&E and has the power under Kansas law to require KG&E to establish and maintain just and reasonable rates. K.S.A. §§ 66-101, 101b. Further, the KCC at any time may upon complaint from a customer, or on its own motion, investigate KG&E's existing rates and, if it finds them unjust or unreasonable, may order substitute rates. K.S.A. § 66-101d. Therefore, the

KCC has the opportunity at any time to repeat the ratemaking treatment imposed on KG&E in the 1985 Order. The KCC is well aware of this, and stated it repeatedly in the 1987 Order:

> . . . we have not foreclosed the possibility of further challenge to the [rates set for Wolf Creek]. . . . Nor is our action inconsistent with the possibility that at some point after the increases become effective that it would be appropriate to examine the reasonableness of KG&E's earnings. . . . any customer of KG&E, as well as the Commission staff, is always free to file a complaint alleging that KG&E's rates are unreasonable.
>
> * * * *
>
> Of course, the Commission also continues to have the right to reexamine all elements of KG&E's revenue requirements should it appear that its earnings or rates are unreasonably high.

Motion at A18, A33.

The continuing nature of the ratemaking process was central to the Court's decision against mootness in *Southern Pacific, supra.* In that case, the Court noted that issues decided in orders of the Interstate Commerce Commission (ICC) may influence future proceedings. Because the proceedings of the ICC are continuing, issues relevant to future cases "ought not to be, as they might be, defeated by short term orders, capable of repetition yet evading review. . . ." *Southern Pacific,* 219 U.S. at 515.

The Court recognized in *National Association of Greeting Card Publishers v. United States Postal Service,* 462 U.S. 810 (1983) that a subsequent rate order does not automatically render a case moot. That case involved a challenge to rates set for the United States Postal Service by the Postal Rate Commission. While the litigation was pending, the challenged rates were modified. The Court recognized that postal rates frequently are in effect too briefly for litigation concerning them to be completed be-

fore they are superceded and therefore held that modification of the challenged rates did not moot the controversy. *Id.* at 820, n. 14. In fact, the Court noted that in two previous cases, challenged rates had been superceded before judicial review could be concluded. *Id.* Because issues presented would be central to future proceedings and a reasonable expectation existed that the petitioner would be affected by the future proceedings, the Court refused to find the case moot.

Other courts have also recognized that a rate order issued during the pendency of an appeal of a prior rate order does not moot the controversy surrounding the first order. *See e.g., State ex rel. Missouri Public Service Company v. Fraas*, 627 S.W.2d 882 (Mo. Ct. App. 1981); *Michigan Bell Telephone Company v. Public Service Commission*, 85 Mich. App. 163, 270 N.W.2d 546 (Mich. Ct. App. 1978); *Intermountain Gas Co. v. Idaho Public Utility Commission*, 98 Idaho 718, 571 P.2d 1119 (Idaho 1977). The Missouri Court of Appeals recognized that under the general rule of mootness, when rates cannot be amended prospectively because they have been superceded by a subsequent rate order, a case is considered moot. *Fraas, supra.* The court held, however, that an exception is made when the issue presented is of a recurring nature and of general public interest and importance. The court decided to hear the case because a legal principle was involved on which a ruling was necessary for future guidance.

The rationale set forth by this Court in *National Association of Greeting Card Publishers* and in the state court decisions cited above holds true for KG&E. KG&E certainly will be affected in future proceedings by a decision in this case. This Court has recognized that in cyclically recurring actions, a particular decision "by its continuing and brooding presence, casts what may well be a substantial adverse effect on the interests of the petitioning parties." *Super Tire Engineering Company*

v. McCorkle, 416 U.S. 115, 122 (1974); *see also Weinstein v. Bradford*, 423 U.S. 147, 148 (1975) (citing *Super Tire*). The 1985 Order issued by the KCC had a devastating effect on KG&E's financial condition. The possibility that the KCC will repeat the ratemaking treatment used in the 1985 Order will have a "substantial adverse effect" on KG&E's ability to obtain future financing. Therefore, KG&E seeks assurance that the confiscatory and inherently punitive ratemaking treatment will not be imposed at some future date. Further, the issues in this case have national significance. As stated in KG&E's Jurisdictional Statement, utilities across the country have invested in nuclear generating plants awaiting final ratemaking treatment. The Brief of *Amicus Curiae* of the Edison Electric Institute In Support of Jurisdictional Statements, discusses the effect of large disallowances already imposed on utilities and stresses the importance to future ratemaking of a decision in this case.

2. Voluntary Cessation

The KCC has never repudiated the valuation method it used in the 1985 Order. In fact, the KCC stated in the 1987 Order that "there is no firm basis for reassessing the cost efficiencies of Wolf Creek." Motion at A30. The KCC revalued Wolf Creek at its prudent net original cost only because KG&E presented it with an innovative plan that satisfied the KCC's concerns. "In the application before us, KG&E has proposed a method for dealing with the issue of value in a way that deals successfully with our concerns. . . ." *Id.* The KCC, however, explicitly reserved the right to revisit the question of valuation for Wolf Creek: "Of course, if the predicates to the valuation were to change, . . . the analysis of this Commission could also change." *Id.* at A30-A31.

The KCC's actions in the 1987 Order amount to voluntary cessation of conduct with a reasonable expectation

that the conduct will be repeated. This Court recognized in *United States v. W.T. Grant Company*, 345 U.S. 629, 632 (1953), that voluntary cessation of conduct does not deprive the Court of the power to hear and determine the case. Otherwise, the "defendant is free to return to his old ways." *Id.* at 632. The Court stated that although the defendant could attempt to demonstrate that there is no reasonable expectation that the wrong will be repeated, the burden on the defendant to prove that it will not engage in the challenged practice in the future is a heavy one. *Id.* at 633.

Here, the KCC has not even attempted to meet this heavy burden. In the 1987 Order it explicitly reserved the right to examine the valuation of Wolf Creek in the future and the 1987 Order, as well as the KCC's instant motion, are glaringly silent about the valuation method the KCC would use to value Wolf Creek if KG&E's rates were challenged in a future proceeding.

CONCLUSION

KG&E suffered significant injury during the time the 1985 Order was in effect and continues to suffer injury as a result of that Order. Further, a reasonable expectation exists that the methods used in the 1985 Order will be imposed on KG&E in the future.

The fundamental issues involved in KG&E's appeal are central to utility ratemaking. A resolution of questions involving the constitutional standard for confiscation in a state ratemaking proceeding is important not only to KG&E but to utilities throughout the country. This Court has not decided a case that applies the constitutional test for confiscatory rates in a state ratemaking proceeding in a very long time. Also, the question of how the constitutional requirement of equal protection should be applied in utility ratemaking functions has never been addressed by this Court. Future ratemaking by state com-

missions and review by state courts will certainly be affected by a decision in this case. This case presents the Court with an opportunity to clarify the constitutional standards applicable to ratemaking.

For the reasons stated herein, the Court should deny the KCC's Motion to Dismiss, hear oral argument and decide the case on the merits.

Respectfully submitted,

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May 9, 1987

WILSON - EPES PRINTING CO., INC. - 789-0096 - WASHINGTON, D.C. 20001

QUESTIONS PRESENTED

1. Whether by denying a current return on 78 percent of the common shareholders' investment in a new power plant currently serving Kansas customers, the Kansas Corporation Commission (KCC) set electric utility rates so low as to confiscate Kansas Gas and Electric Company's (KG&E) property in violation of the Fifth and Fourteenth Amendments to the United States Constitution?

2. Whether the KCC violated KG&E's rights to equal protection and due process when, for purposes of ratemaking, it valued KG&E's new power plant differently than any other power plant in Kansas?

PARTIES BELOW

The appellants in the Kansas Supreme Court were KG&E,* for Case No. 58,914; Kansas City Power & Light Company (KCPL), for Case No. 58,917; and, Kansas Electric Power Cooperative, Inc., for Case No. 58,918.** The appellee in all three cases was the State Corporation Commission of the State of Kansas (KCC). Mary Margaret Rogers; the Attorney General of the State of Kansas; Alliance for Liveable Electric Rates; Electric Shock Coalition; City of Wichita, and Cities of Cheney, Clearwater, Derby, Garden Plain, Goddard, Kechi, Potwin and Whitewater; and Johnson County Joint Intervenor Group also participated in the appeals.

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* KG&E has no parent and no publicly held affiliates or subsidiaries.

** The Kansas Supreme Court consolidated the appeals of KG&E, KCPL and Kansas Electric Power Cooperative, Inc., from separate rate orders issued by the KCC. KG&E and KCPL filed appeals to this Court, which consolidated those appeals.

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Panhandle Eastern Pipeline Company v. Federal Power Commission, 324 U.S. 635 (1945)	18
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Savannah Electric and Power Company v. Georgia Public Service Commission, 239 Ga. 156, 236 S.E.2d 87 (1977)	14
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Washington Gas Light Company v. Baker, 188 F.2d 11 (D.C. Cir. 1950) *cert. denied, sub nom., Public Utilities Commission v. Baker*, 340 U.S. 952 (1951)	20
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Atomic Energy Commission, *Civilian Nuclear Power . . . A Report to the Presidnet—1962*	4
Wall Street Journal, August 15, 1986, at 26, col. 3	14
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United States Department of Energy, *Energy Security: A Report to the President of the United States* (March 1987) 5, 13, 20
Vancrum, *The Wolf Creek Excess Cost—Excess Capacity Bill*, 33 U.Kan.L.Rev. 475 (1985)..... 6
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BRIEF FOR APPELLANT KANSAS GAS AND ELECTRIC COMPANY

OPINIONS BELOW

The opinion of the Kansas Supreme Court reprinted in Appellants' Appendix to Jurisdictional Statement (App. 1a-57a)[1] is reported at 239 Kan. 483, 720 P.2d 1063 (1986). The Order of the State Corporation Commission of Kansas (KCC) dated September 27, 1985 (App. 1c-176c) is reported at 70 P.U.R.4th 475. The KCC Orders

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[1] Pursuant to an order entered by the Court on March 23, 1987, no joint appendix will be filed in this case. All references to an appendix refer to Appellants' Appendix to Jurisdictional Statement.

Denying Rehearing, dated November 15, 1985 (App. 1d-23d), and November 27, 1985 (App. 1e-4e), are unreported.

JURISDICTION

The Kansas Supreme Court issued its opinion on June 13, 1986, and denied rehearing on July 17, 1986. KG&E filed timely Notice of Appeal in the Kansas Supreme Court on September 29, 1986. (App. 1i-2i). This Court has appellate jurisdiction under 28 U.S.C. § 1257(2). *See Nantahala Power & Light Company v. Thornburg*, 106 S.Ct. 2349 (1986).[2] Alternatively, this Court has jurisdiction under 28 U.S.C. § 1257(3).

CONSTITUTIONAL AND STATUTORY PROVISIONS

The United States Constitution, Amendment V:

> No person shall be . . . deprived of life, liberty, or property, without due process; nor shall private property be taken for public use, without just compensation.

The United States Constitution, Amendment XIV, § 1, Clauses 3 and 4:

> [N]or shall any State deprive any person of . . . property, without due process of law; nor deny to any person . . . the equal protection of the laws.

The pertinent provisions of the Kansas Public Utilities Act, K.S.A. §§ 66-101 *et seq.*, are reprinted at App. 1j-9j.

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[2] On appeal, the Kansas Supreme Court upheld the KCC Order under a challenge that the Order violates KG&E's rights pursuant to the Fifth and Fourteenth Amendments to the United States Constitution. State ratemaking orders issued under delegated legislative authority are "state statutes" for purposes of 28 U.S.C. § 1257(2). *See, e.g., Arkansas Elec. Coop. Corp. v. Arkansas Pub. Serv. Comm'n*, 461 U.S. 375 (1983); *Atchison, Topeka & S.F.R. Co. v. Pub. Util. Comm'n*, 346 U.S. 346 (1953).

STATEMENT OF THE CASE

This is an appeal from a decision of the Kansas Supreme Court that affirmed a 1985 rate order of the KCC setting electric utility rates for KG&E.[3] The KCC Order denied KG&E's common shareholders any current return on 78 percent of their prudent investment in a newly completed nuclear power plant, the Wolf Creek Generating Station (Wolf Creek).[4]

KG&E provides retail electric service to 246,000 customers in south central Kansas. During the 1960s, KG&E relied entirely on natural gas as a fuel for generating electricity. In 1967, KG&E's principal gas supplier notified KG&E that it no longer would enter into long-term gas contracts.[5] To fulfill its legal obligation to provide an

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[3] Regulated rates should allow a utility an opportunity to earn revenues sufficient to pay operating expenses and cover capital costs. *Bluefield Waterworks & Improvement Co. v. Pub. Serv. Comm'n*, 262 U.S. 679, 692-93 (1923). That level of revenues is defined as:

Revenue Requirement = Operating Expenses + (Rate Base x Weighted Average Cost of Capital)

This appeal focuses on the revenue requirement—the end result of the rate order—and the rate base used by the KCC to determine that revenue requirement.

[4] The rates challenged in this appeal are those set by the KCC in its 1985 Order. The KCC issued a subsequent rate order on March 11, 1987, which was the basis for the KCC's Motion to Dismiss for Lack of Case or Controversy (filed with this Court on April 10, 1987). The subsequent rate order is not the subject of this appeal.

[5] This situation was not unique to KG&E. Many electric utilities and other industries relied heavily on natural gas during the 1960s. Because natural gas was used for many important purposes, chief among them home heating, a national concern over the long-term supply and price of natural gas developed in the 1970s. This concern led Congress in the Natural Gas Policy Act and the Power Plant and Industrial Fuel Use Act of 1978 to deregulate the price

adequate and reliable supply of electric power to Kansas customers, KG&E began an orderly transition from its reliance on gas generation to a diversified generation system that included coal and nuclear plants. As part of this transition, KG&E joined with Kansas City Power & Light Company (KCPL) and later with Kansas Electric Power Cooperative, Inc. (KEPCo) to construct and operate Wolf Creek. KG&E and KCPL each own 47 percent of Wolf Creek, and KEPCo owns the remaining 6 percent.

KG&E's decision to build a nuclear plant responded not only to the need for diversification of its fuel mix, but also to the national policy favoring nuclear power. The federal government has encouraged the use of commercial nuclear power since the enactment of the Atomic Energy Act in 1946. In the early 1960s, the Atomic Energy Commission (AEC) began a program to encourage construction of commercial nuclear power plants. In a 1962 study, the AEC concluded that nuclear power would account for one-half of the national energy supply by the year 2000. Atomic Energy Commission, *Civilian Nuclear Power . . . A Report To The President—1962.*

The Organization of Petroleum Exporting Countries oil embargo in the early 1970s made nuclear power even more attractive because nuclear power reduces the nation's reliance on foreign fuel sources. With the encouragement of the federal government, many utilities began constructing nuclear plants to meet the nation's growing energy needs and to conserve scarce and increasingly expensive supplies of oil and gas. Nuclear power continues to be an important part of the national energy plan:

> Nuclear power is a major source of U.S. electricity. In 1986, it provided 16 percent of our total generation. The United States has more than 100 operable nuclear generating units, and an additional 19 are under construction.

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of natural gas and to mandate a shift away from natural gas as a boiler fuel for electric power generation.

> Nuclear energy is a secure resource, unaffected by international oil supply or price disruptions. Since 1974, nuclear power has been responsible for one-third of the total generating capacity added to meet growing demand for electricity, and it has been pivotal in reducing the use of oil and gas for electric generation.

United States Department of Energy, *Energy Security: A Report to the President of the United States* 150 (March 1987).

When construction began on Wolf Creek in 1977, estimates placed its total cost at $1 billion. When Wolf Creek began commercial operation in 1985, its cost was $2.9 billion. Despite that increase, the plant's cost remained below the industry average for comparable plants.[6] The increase in cost resulted primarily from unforeseeable new regulatory requirements affecting the design, construction and operation of nuclear plants. Witnesses for KG&E, the KCC staff and intervenors agreed that new and revised Nuclear Regulatory Commission (NRC) regulations, promulgated after construction began at Wolf Creek, accounted for at least 50 percent of the cost increase. (R. Vol. 22, G-220 at 156; R. Vol. 70, G-268 at 10034-49; R. Vol. 56, G-254 at 6354-56). Many of the regulatory changes resulted from unexpected events that occurred in the 1970s, such as the 1979 incident at the Three Mile Island plant. The Kansas Supreme Court

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[6] In hearings before the KCC, witnesses for KG&E, the KCC staff and intervenors presented detailed comparisons of Wolf Creek's cost and schedule with those of comparable nuclear plants. (R. Vol. 78, G-276, (CLH-1&2) at 8-9, 19-29; R. Vol. 23, G-221 at 320-21; R. Vol. 98, G-296 (GIR-2) IV-3 to IV-6; R. Vol. 68, G-268 at 9766-67; R. Vol. 46, G-244 at 4888-96; R. Vol. 254, G-452; R. Vol. 70, G-268 at 9963). This testimony showed that Wolf Creek's cost is below the average cost of comparable plants and the plant's construction schedule is among the shortest in the industry. (R. Vol. 78, G-276 (CLH-1&2) at 8-9, 19-29).

recognized that regulatory changes increased the cost of Wolf Creek. (App. 7a-8a).

The potential impact of Wolf Creek construction costs on electric rates has been a political issue in Kansas for years. In 1978, the year after construction on Wolf Creek began, the Kansas legislature enacted legislation prohibiting utilities from including in their rates the financing costs of a construction project until the project is complete. K.S.A. § 66-128 (App. 2j).[7] As a result of the law, KG&E had to capitalize for future recovery the project financing costs. This added $1 billion to the final cost of Wolf Creek. One Kansas legislator has stated that this Kansas law is one of her proudest accomplishments. Wichita Eagle-Beacon, August 14, 1986, at 1D, Col. 1. A year after the legislation was passed, the KCC initiated an investigation into the cost of Wolf Creek that continued until 1985 when it was consolidated with KG&E's Wolf Creek rate case. In 1984, the Kansas legislature passed the so-called Wolf Creek amendments to the Kansas public utility law. K.S.A. § 66-128a-128k (App. 2j-9j). By emphasizing the KCC's responsibility to examine a utility's actions in constructing new generating plants and focusing on nuclear power plants, the amendments sent a clear message to the KCC that the Wolf Creek rate increase should be severely limited. The principal author of the amendments described them as a "political imperative." Vancrum, *The Wolf Creek Excess Cost—Excess Capacity Bill*, 33 U.Kan.L.Rev. 475 (1985).

In late 1984, KG&E requested an increase in rates to reflect the addition of Wolf Creek to its rate base. Without exception, the KCC had used original cost to value additions to rate base for at least the past 40 years. Accordingly, KG&E based the rate increase for Wolf

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[7] The majority of states allow utilities to recover construction financing costs during the construction period. Construction Work in Progress for Public Utilities; Inclusion of Costs in Rate Base, 48 Fed. Reg. 24323, 24346 (Col. 1) (June 1, 1983).

Creek on the plant's original cost. Using this method, KG&E projected a total rate increase of $373 million. To mitigate the rate impact on customers, KG&E proposed that the increase be phased-in over five years.[8] The proposed first-year rate increase of $144.9 million was set at the minimum level necessary to assure KG&E's financial survival. (R. Vol. B-3, 430-31).

The KCC granted a *total* rate increase of only $169 million to be phased-in over four years. (App. 152c). The KCC reduced KG&E's requested rate increase in three steps:

1) The KCC excluded from rate base approximately $125 million (or 10 percent) of KG&E's $1.295 billion share of the construction costs[9] because it found that those costs were imprudently incurred. (App. 46c, 54c-55c). KG&E does not challenge that finding by the KCC.

2) Although KG&E is using its entire share of the power from Wolf Creek to provide energy to Kan-

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[8] A phase-in imposes a rate increase gradually over a period of years rather than all at once in a single year. Under its proposed phase-in, KG&E would have accrued financing charges on the portion of Wolf Creek not reflected in current rates. These financing charges would be accounted for as current non-cash income and would be accumulated as an asset to be recognized in rates at a later time. Thus, the phase-in would have given KG&E current earnings while reducing the required cash payments from ratepayers in the short term.

[9] The portion of KG&E's Wolf Creek costs regulated by the KCC is $1.295 billion. The amounts disallowed in the KCC Order are based on KG&E's total share of Wolf Creek, which includes a portion governed by the Federal Energy Regulatory Commission (FERC). The amounts at issue in this appeal are based on the $1.295 billion regulated by the KCC and thus are slightly less than the amounts in the KCC Order.

sas customers,[10] the KCC found that 327 megawatts (MW) of KG&E's share of Wolf Creek's capacity is not currently needed. (App. 67c). Accordingly, the KCC excluded from KG&E's rate base $716 million of costs related to 327MW of Wolf Creek. The KCC purported to moderate this exclusion by allowing a partial, deferred return on certain of those costs.[11] For the deferred return, the KCC valued the 327MW at $1290/kW, instead of the original cost of the plant. (*Id.*) As a result, KG&E earns no return on $305 million and only a partial (non-common equity) deferred return on $411 million of the total $716 million. (App. 109c-110c).

3) After these deductions the KCC found that the remaining cost of Wolf Creek still was too high. (App. 72c). The KCC refused to follow its consistent practice of using original cost to value plant additions. Instead, the KCC used an "economic value" of $1290/kW, the assumed cost of a hypothetical coal plant, to value the portion of Wolf Creek found to be currently needed. (App. 108c). This valuation method denied a return on an additional $194 million of KG&E's investment in Wolf Creek. The KCC did not base this valuation on a finding that KG&E had acted imprudently in building Wolf Creek. (App. 101c, 109c).

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[10] On September 3, 1986, Wolf Creek set a U.S. performance record for first year nuclear power plant generation, producing 8.922 billion kilowatt hours of electricity. Nucleonics Week, Sept. 11, 1986 at 13.

[11] The KCC allowed a deferred return on the debt and preferred stock components of KG&E's capital but no return on common stock. This deferred return does not affect current rates or bring KG&E any current cash income. The return is a bookkeeping entry creating a paper asset that has value only because the KCC has promised to allow KG&E to recover this amount in future rates.

The KCC's valuation of Wolf Creek at $1290/kW denied KG&E any return on $499 million [12] of its $1.170 billion prudent investment in Wolf Creek.[13] The valuation method coupled with the KCC's other disallowances has an even greater effect. The KCC Order allows KG&E to earn a full current return on only $260 million [14] of its $1.170 billion prudent investment in Wolf Creek—a denial of return on 78 percent of KG&E's prudent investment.

In its application for rehearing before the KCC, KG&E alleged that the KCC Order resulted in confiscatory rates in violation of the Fifth and Fourteenth Amendments to the United States Constitution. KG&E also alleged that the manner in which the rates were set denies KG&E equal protection and due process in violation of the Fourteenth Amendment to the United States Constitution. In denying rehearing, the KCC did not address directly KG&E's constitutional claims. (App. 1d-23d).

On appeal to the Kansas Supreme Court, KG&E again alleged that the KCC Order is unconstitutional because it is confiscatory and violates KG&E's equal protection and due process rights. Over a strong dissent by the Chief Justice (App. 46a to 57a), the Kansas Supreme Court upheld the KCC Order.

SUMMARY OF ARGUMENT

A. The Rates Set By The KCC Are Confiscatory

The Fifth Amendment requires that a regulated utility be granted the opportunity to earn a reasonable return on capital prudently invested. As stated by the Court in

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[12] $305 million related to physical excess capacity plus $194 million related to economic excess capacity.

[13] $1.295 billion total KG&E share less $125 million disallowance for imprudence.

[14] $1.170 billion prudent investment less $716 million disallowance for physical excess capacity and $194 million disallowance for economic excess capacity.

Bluefield Waterworks & Improvement Co. v. Pub. Serv. Comm'n, 262 U.S. 679, 692-93 (1923), a public utility is entitled to an opportunity to earn a return equal to returns on investments of similar risk. The Court further stated that a reasonable return is a return that assures confidence in financial soundness, maintains credit and attracts capital. *Id.* at 693.

The Court held in *Federal Power Comm'n v. Hope Natural Gas Co.*, 320 U.S. 591 (1944), that the scope of judicial review of rate orders challenged as confiscatory is limited to an examination of the end result of the rate order. The Court recognized that ratemaking involves a balancing of investor and consumer interests that is best done by an expert ratemaking body. Subsequent cases necessarily presumed that balancing would produce rates within a zone of reasonableness. *E.g.*, *Permian Basin Area Rate Cases*, 390 U.S. 747 (1968).

The balancing of interests alone, however, does not satisfy the Fifth Amendment guarantee of just compensation if the end result of the balancing process falls outside the zone of reasonableness. The Fifth Amendment sets a minimum level below which rates must not fall regardless of the balance of interests. The constitutional standard for determining whether rates are confiscatory, as set forth in *Bluefield*, is whether they provide the opportunity to earn a return commensurate with returns on investments of similar risk and sufficient to assure financial soundness, maintain credit and attract capital.

KG&E's rates were set at a level that would provide an opportunity to earn less than a one-percent return on common equity although the KCC itself determined that a proper return on common equity would be 15.50 percent. The less than one-percent return actually provided by the KCC does not assure confidence in KG&E's financial integrity or allow KG&E to cover operating expenses and capital costs.

The Kansas Supreme Court's summary inquiry into the reasonableness of KG&E's rates led it to conclude that the rates were not improper because "[i]t is only the return on profit on certain costs which has been restricted by the Commission." (App. 46a). If the Kansas Court had examined this "restriction of return," as required by the constitution, it would have concluded that the restricted return on KG&E's investment in Wolf Creek produces rates that are confiscatory.

The rates set by the KCC do not allow KG&E the opportunity to earn a return commensurate with returns on investments of corresponding risk or sufficient to assure confidence in KG&E's financial integrity. Therefore, those rates fail to provide the just compensation required by the Fifth Amendment.

B. The Rate Base Valuation Adopted By The KCC Violates KG&E's Right To Equal Protection And Due Process

The KCC valued Wolf Creek differently than any other electric plant in Kansas. The Kansas ratemaking statute charges the KCC with determining the "reasonable value" of all utility property used and required to be used to serve the public in Kansas. K.S.A. § 66-128. (App. 2j). This provision of the statute has existed in substantially similar form since 1911. With the sole exception of this case, the KCC consistently has applied this provision of the statute by using net original cost as the single measure of value for all utility assets. This method of valuation has, at a minimum, allowed investors to earn a return on the actual amounts prudently spent to construct generating facilities.

In the present case, the KCC singled out Wolf Creek—the only nuclear power plant in Kansas—for treatment different than any other electric generating facility in Kansas. The KCC did not value Wolf Creek for ratemaking purposes at $2456/kW, the net original cost of

KG&E's prudent investment. Rather, the KCC valued Wolf Creek at a so-called economic value of $1290/kW (App. 108c), based upon the supposed cost of a hypothetical coal-fired plant. At the same time, however, the KCC valued KG&E's other generating facilities, including five modern coal-fired plants, at net original cost, rather than their higher economic value. The unequal treatment of Wolf Creek produced drastically lower rates for KG&E.

The unequal treatment of Wolf Creek is not rationally related to any legitimate state interest. The KCC's only justification for valuing Wolf Creek as it did was that it found Wolf Creek was too expensive. (App. 72c). The KCC therefore chose not to recognize for ratemaking purposes a significant portion of Wolf Creek's cost—a cost resulting in large part from KG&E's adherence to federal and state policies and regulations. Nothing about Wolf Creek's cost provides a basis for adopting a different valuation method for that plant. The KCC valued Wolf Creek differently because it wanted to set KG&E's rates at a politically-acceptable level. Application of a new valuation method to a single asset in KG&E's rate base is not a rational way to achieve the result desired by the KCC. The KCC's discriminatory valuation of Wolf Creek therefore violates KG&E's right to equal protection of the laws.

ARGUMENT

I. INTRODUCTION

This appeal presents an issue that is arising more frequently as utilities attempt to recover investments in new nuclear plants. Regulatory commissions around the country routinely have begun to deny utilities a normal return on funds invested in nuclear generating facilities. This practice penalizes utilities for complying with national energy policy and contradicts accepted ratemaking theory. The Department of Energy (DOE) recently warned the President about the magnitude of this problem:

> Regulators are now under intense pressures to allocate some of the enormous costs of [new generating] plants between ratepayers and investors. . . .
>
> Today's regulatory environment prompts electric utilities to focus on short-term economics . . . and to avoid new capital investment, because they no longer trust regulators to allow them to recover their costs on capital-intensive projects with long lead times.
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> * * * *
>
> If the United States is to have an adequate supply of electricity-generating capacity in the future—based on a secure and cost-effective mix of primary energy sources—regulatory practices that discourage prudent long-term investment need to be revamped.

United States Department of Energy, *Energy Security: A Report to the President of the United States*, 130, 189, 195 (March 1987). This case reaches beyond mere redress of a single utility's grievance and permits the Court to consider the constitutional implications of a nationwide problem.

Investment in public utility property by definition is taken for the public interest, and investors have a constitutionally protected right to earn a just and reasonable return on their investment. Regulators cannot deny that constitutional protection simply because they believe a plant is too expensive. That result is particularly unfair when, as here, the high cost stems from compliance with federal and state energy and safety policies.

The importance of permitting utilities the opportunity to earn a just and reasonable return should not be minimized. The utility industry is capital-intensive. To provide continued public service, utilities must finance the construction of generation, transmission and distribution facilities. These activities require large amounts of capital which will be available from investors only if utilities are able to offer them an opportunity for a return commensurate with the risk undertaken. Justice Brandeis

recognized this in *Missouri ex rel. Southwestern Bell Telephone Co. v. Public Service Comm'n*, 262 U.S. 276, 308 (1923) (Brandeis concurring):

> The prime needs of the community are that facilities be ample and that rates be as low and as stable as possible. The community can get cheap service from private companies, only through cheap capital. . . . It can get ample service through private companies only if investors may be assured of receiving continuously a fair return upon the investment.

See also Wall Street Journal, Aug. 15, 1986, at 26, col. 3. (comment by Alfred H. Kahn, former chairman of the Civil Aeronautics Board and the New York Public Service Commission.)

The current regulatory practice of denying a return on prudent investment in nuclear plants has not gone unnoticed by the investment community. The stocks of utilities with nuclear plants under construction are considered a risky investment. As noted in the DOE report, *supra*, this practice has begun to lead the utility industry to avoid the long-term investments necessary to ensure an adequate supply of electricity in the future. *See also Western Massachusetts Electric Co.*, Docket No. 85-270 (Mass. DPU 1986).

Regulators have focused on the short term "political imperative" of low rates rather than the long-term effect on investment. The *Hope Natural Gas* decision has been interpreted to require that courts accord rate orders extreme deference. The common judicial interpretation of *Hope*'s end results test allows courts to avoid meaningful review of rate orders.[15] Although courts should accord regulators discretion in setting rates, that discretion

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[15] *See, e.g., Savannah Electric & Power Co. v. Georgia Pub. Serv. Comm'n.*, 239 Ga. 156, 236 S.E.2d 87 (1977); *Nevada Power Co. v. Pub. Serv. Comm'n*, 91 Nev. 816, 544 P.2d 428 (1975).

should not allow regulators to ignore the constitutional rights of investors.

In the rare instances when state courts have attempted meaningful review of rate cases, there has been significant confusion about the constitutional standard of review. In *Georgia Power Co. v. Georgia Public Service Comm'n*, 231 Ga. 339, 201 S.E.2d 423 (1973), for example, the utility contended that the Georgia commission set rates using a rate base that was one-half billion dollars too low, resulting in rates below the constitutionally permissible zone of reasonableness. The Georgia Supreme Court agreed that the rates were outside the zone of reasonableness established by *Hope*, but it nevertheless refused to find that the rates were confiscatory. Instead, the court found that the rates fell into an " 'area of unreasonableness' which is barely above the point of confiscation." *Id.* at 427. Thus, in at least one state, there is a level for rates that is unreasonable yet not confiscatory.

The case at hand presents the Court an opportunity to reaffirm the constitutional requirement that utility investors be compensated for property dedicated to public service, regardless of a regulator's "political imperative." The desire to improve the public condition does not warrant an unconstitutional shortcut that ultimately impairs the public interest.

II. THE RATES SET FOR KG&E ARE CONFISCATORY

The KCC Order set rates for KG&E that are confiscatory. The KCC set rates that authorize KG&E to earn only $121 million in operating income which, after payment of interest and dividends to preferred shareholders, leaves net revenue, based on the evidence in the record, sufficient for a return to common shareholders of less

than one percent.[16] That is not the just compensation required by the Fifth Amendment.

A. Standard Of Review

The Fifth Amendment guarantees just compensation for private property taken for public use. This guarantee applies to the regulation of utility rates.[17] Although the early part of this century saw judicial debate over the proper scope of review of rate orders,[18] the principle of

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[16] KG&E's total $1.904 billion prudent rate base (App. 176c) represents the capital provided by common stockholders, preferred stockholders and bond holders. Common stockholders provided about 39 percent of those funds (or $736 million). From the net operating income of $120.8 million authorized by the KCC (App. 174c, line 4; App. 4d, ¶ 9), KG&E must pay $114.4 million in interest on mortgage bonds and dividends to preferred stockholders and other contractual debt. That leaves $6.4 million for common stockholders (120.8−114.4=6.4), which translates into a less than one percent return on their $736 million investment. If allowance is made for the KCC's approval of a partial (*i.e.*, no return on common equity), non-cash return (estimated to be about $14.5 million) on the portion of Wolf Creek found to be excess physical capacity, the return available to KG&E's common shareholders is still less than three percent.

[17] The power to regulate rates is premised on the dedication of property to public use. *Munn v. Illinois*, 94 U.S. 113 (1877). Therefore, when a rate order is challenged as confiscatory, the issue is whether the compensation allowed is just, not whether a taking has occurred. The Court recognized in the *Railroad Commission Cases*, 116 U.S. 307 (1886) and *Reagan v. Farmers' Loan and Trust Co.*, 154 U.S. 362 (1894), that rate regulation constitutes a taking and must not result in confiscation. Later in *Smyth v. Ames*, 169 U.S. 466, 546 (1898), the Court stated that a utility "may not be required to use its property for the benefit of the public without receiving just compensation for the services rendered by it."

[18] Much of the debate centered around the method of valuing rate base. *See Missouri ex rel. Southwestern Bell Telephone Co. v. Pub. Serv. Comm'n*, 262 U.S. 276, 289-312 (1923) (Brandeis, concurring). Beginning with *Federal Power Comm'n v. Natural Gas Pipeline Co.*, 315 U.S. 575, 585-86 (1942), the scope of judicial

just compensation has remained constant. By 1923, when the Court decided *Bluefield Waterworks & Improvement Co. v. Public Service Comm'n*, 262 U.S. 679, the constitutional requirement of a reasonable return was settled:

> Rates which are not sufficient to yield a reasonable return on the value of the property used at the time it is being used to render the service are unjust, unreasonable and confiscatory, and their enforcement deprives the public utility company of its property in violation of the Fourteenth Amendment. This is so well settled by numerous decisions of this court that citation of cases is scarcely necessary.

262 U.S. at 690. The return that constitutes just compensation was described in *Bluefield*: [19]

> A public utility is entitled to such rates as will permit it to earn a return . . . equal to that generally being made . . . on investments in other business undertakings which are attended by corresponding risks and uncertainties; but it has no constitutional right to profits such as are realized or anticipated in highly profitable enterprises or speculative ventures. The return should be reasonably sufficient to assure confidence in the financial soundness of the utility and should be adequate, under efficient and economical management, to maintain and support its credit and enable it to raise the money necessary for the proper discharge of its public duties.

Id. at 692-93.

The Court applied this standard of just compensation in its review of Federal Power Commission (FPC) rate orders governed by the Natural Gas Act (Act). *E.g.*,

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review shifted from examination of the methods of regulation (*e.g.*, the use of fair value or original cost) to an examination of the results. KG&E challenges the result of the KCC Order as confiscatory.

[19] Although the Court in *Bluefield* applied the fair value method of ratemaking adopted in *Smyth*, the Court's formulation of the test for just compensation remains distinct from that now-rejected valuation method.

Colorado Interstate Gas Co. v. Federal Power Comm'n, 324 U.S. 581 (1945); *Panhandle Eastern Pipeline Co. v. Federal Power Comm'n*, 324 U.S. 635 (1945); *Federal Power Comm'n v. Hope Natural Gas Co.*, 320 U.S. 591 (1944). The Act required the FPC to set "just and reasonable rates." The constitutional standard was important in reviewing cases governed by the Act because "the 'lowest reasonable rate' is one which is not confiscatory in the constitutional sense." *Federal Power Comm'n v. Natral Gas Pipeline Co.*, 315 U.S. 575, 585 (1942). As a result, the Act's "just and reasonable" standard was held to coincide with the applicable constitutional standard. *Id.*, at 586, cited with approval in *Permian Basin Area Rate Cases*, 390 U.S. 747, 770 (1968).

In *Hope*, the Court applied the coinciding constitutional and Natural Gas Act standards for just compensation. The issue was whether rates set by the FPC fell below the "lowest reasonable rate" allowed by the Act's standard of "just and reasonable rates." The Court stated that, from the investor's point of view, just and reasonable rates provide:

> . . . enough revenue not only for operating expenses but also for the capital costs of the business. These include service on the debt and dividends on the stock. . . . By that standard the return to the equity owner should be commensurate with returns on investments in other enterprises having corresponding risks. That return, moreover, should be sufficient to assure confidence in the financial integrity of the enterprise, so as to maintain its credit and to attract capital.

320 U.S. at 603.

The Court in *Hope* announced that the scope of judicial review of rate orders challenged as confiscatory is limited to an "end result" test:

> It is not theory but the impact of the rate order which counts. If the total effect of the rate order

> cannot be said to be unjust and unreasonable, judicial inquiry under the Act is at an end. The fact that the method employed to reach that result may contain infirmities is not then important.

Hope, 320 at 602; *see also Natural Gas Pipeline*, 315 U.S. at 586. The Court's focus on the end result of the ratemaking process recognizes that ratemaking is "the product of expert judgment" that "involves a balancing of the investor and consumer interests." *Hope*, 320 U.S. at 602-603. Subsequent cases necessarily have presumed that this balancing process produces rates within a zone of reasonableness that accounts for both consumer and investor interests. If rates fall within that zone, they are not confiscatory. *See, e.g., Permian*, 390 U.S. at 770.

The Kansas Supreme Court in this case apparently believed that the balancing of consumer and investor interests itself was the end result contemplated in *Hope*, rather than the means to that end. (App. 10a-12a). Under this view, a commission that has balanced the interests of the consumer and investor would be justified in setting any rates—including rates that deny investors a just and reasonable return. (*See* App. 45a-46a). Balancing consumer and investor interests, however, is not a substitute for the constitutional protection from confiscation.

If balancing itself were the constitutional requirement, the Fifth Amendment protections would be easily circumvented by regulators bent under the weight of public pressure to set low rates. Such an approach often denies a utility the opportunity to earn a reasonable return. The DOE's recent report describes how this type of balancing has been conducted:

> In cases where utilities made investment decisions that seemed sound when approved but later appeared wrong, regulators have frequently ruled that utilities must forego recovery of a substantial portion of their sunk costs.

> When utility investment decisions have proven to be sound, on the other hand, regulators have routinely allocated most of the benefits to the utilities' customers.

Energy Security, supra, at 155.

The balancing requirement is simply a recognition that the Fifth Amendment does not mandate an exact rate in any given situation. Balancing is a ratemaking process that is supposed to result in the selection of a reasonable rate from a range of reasonable rates. Expert regulatory bodies have the ability to balance competing interests in setting rates within a zone of reasonableness. Courts do not have this expertise in ratemaking, and they will not second-guess the method used in the balancing process *as long as the end result is not confiscatory. See Hope*, 320 U.S. at 602-03.

The balancing of interests does not satisfy the Fifth Amendment guarantee of just compensation if the end result falls outside the zone of reasonableness. *Id.* The constitution provides a minimum below which the "balanced" rate must not fall:

> [T]here is a zone of reasonableness within which rates may properly fall. It is bounded at one end by the investor interest against confiscation and at the other by the consumer interest against exorbitant rates.

Washington Gas Light Co. v. Baker, 188 F.2d 11, 15 (D.C. Cir. 1950), *cert. denied*, 340 U.S. 952 (1951). The lowest allowable rate must fall within the zone of reasonableness—must provide the just and reasonable return described in *Bluefield*—because "the 'lowest reasonable rate' is one which is not confiscatory in the constitutional sense." *Natural Gas Pipeline*, 315 U.S. at 585.

The standard for determining whether investors' constitutional rights have been violated by a rate order is found in *Bluefield*. The standard requires an inquiry into whether the rate order permits a return to investors that

is commensurate with returns on investments having similar risk and sufficient to assure confidence in the utility's ability to maintain its credit and attract the capital necessary to meet its public service obligation. *Hope* and its progeny recognize that regulators may set rates within a zone of reasonableness, but the bottom of that zone—the lowest possible rate—is a rate that meets the requirements of *Bluefield.* A lower rate is confiscatory.

B. The Kansas Supreme Court Did Not Review Properly The KCC Order

The Kansas Supreme Court had an obligation to determine whether the rates set by the KCC allow KG&E an opportunity to earn the constitutionally-required minimum level of compensation. The court did not determine whether the KCC achieved that goal. The court's entire discussion of the reasonableness of the KCC Order is contained in two paragraphs. (App. 45a-46a). Nowhere did the court consider whether the Order provides sufficient revenue for the capital costs of the business, whether the return allowed is commensurate with returns on investments with comparable risks, and whether the return is sufficient to maintain credit and attract capital. The court therefore failed to consider whether KG&E's rates satisfy the constitutional minimum requirements that *Bluefield* and *Hope* recognize as essential for protecting investors' rights.

By ignoring KG&E's investors, the Kansas Supreme Court did not balance the interests of the concerned parties or ensure that KG&E was allowed the constitutional minimum level of rates. *See Federal Power Comm'n v. Memphis Light, Gas and Water Division,* 411 U.S. 458, 474 (1973). The court's summary inquiry led it to conclude that the rates were not improper because "[i]t is only the return or profit on certain costs which has been restricted by the Commission." (App. 46a). The "restriction of return" is exactly what must be examined

in a constitutional inquiry. If the Kansas Court had undertaken that constitutional inquiry, it would have concluded that the restricted return on KG&E's investment in Wolf Creek is unconstitutional.

C. The Rates Set By The KCC Do Not Satisfy The Constitutional Requirements

1. *The Rates Set By The KCC Do Not Allow KG&E To Earn A Return Commensurate With The Returns On Investments In Other Businesses With Corresponding Risks*

The KCC determined that a 15.50 percent return to KG&E's common shareholders on prudent investment would provide a return commensurate with returns on investments of comparable risk. As recognized by the KCC, the returns expected by investors reflect their perceptions of the company's risk. (App. 136c). Relying primarily on stock market data, the KCC found that a 15.50 percent return on KG&E's prudently-incurred investment would be reasonable. (*Id.*).

Another measure of returns commensurate with investments having similar risk is FERC's common equity benchmark rate of return for utilities subject to federal regulation. The FERC rate of return is based on information about utilities throughout the country. At the time of the KCC Order, the FERC benchmark rate of return for electric utilities was 13.96 percent. 50 Fed. Reg. 29655 (July 22, 1985).

The less than one-percent return on common equity actually allowed KG&E does not approach any of those returns.[20] Thus, despite the KCC's own findings on the

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[20] Indeed, a one-percent return is far lower than the return on investments with virtually no risk. Thirty-year U.S. Treasury notes generally are considered as very safe and therefore carry a low return. On September 27, 1985, the date of the KCC Order, these extremely low risk investments had a yield of 10.49 percent,

level of reasonable returns, it actually permitted KG&E to earn a return that is unreasonable. As a result, rates set by the KCC do not provide the just compensation required by the Fifth Amendment.

2. *The Rates Set By The KCC Are Insufficient To Assure Confidence In KG&E's Financial Integrity*

In its Order, the KCC noted that the first-year rate increase proposed by KG&E was the minimum amount that would meet KG&E's financial requirements. (App. 151c). The KCC also found that a lower, alternative rate increase proposed by the KCC staff would place KG&E under "severe financial stress." (App. 155c). The KCC went on to note that the rate increase actually adopted "will have an even more serious impact on the company's financial health." (*Id.*). Rates below those creating severe financial stress and those needed to meet minimum financial requirements obviously cannot assure confidence in KG&E's financial integrity. Those rates therefore fail to provide the just compensation required by the Fifth Amendment.

3. *The Rates Set By The KCC Do Not Provide Adequate Revenue To Cover Operating Expenses And Capital Costs*

The insufficiency of KG&E's rates is further shown by the small margin available to cover changes in KG&E's operating costs over the four-year rate phase-in period. In the fourth year of the rate phase-in, KG&E could have as little as $6 million in net operating income available to common shareholders. The KCC staff found that KG&E had about $310 million in operating expenses. (R. Vol. 32, B-66, Sched. B-1). A mere 2 percent increase in those operating expenses over the four-year period

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Wall Street Journal, September 27, 1985, at 48, col. 3, a return much higher than that granted to KG&E.

(about a 0.5 percent cost increase per year) would reduce net operating income over $6 million and would eliminate any return to common shareholders. A larger increase in operating expenses could endanger KG&E's ability to meet its current expenses or its interest and preferred stock obligations, thereby placing KG&E in default on those obligations.[21] By placing KG&E in such a precarious financial position, the KCC failed to set rates that allow KG&E to maintain its long-term credit and attract adequate investment capital.

* * * *

Cases like this demonstrate the tensions between the interests of consumers and investors and the resultant need for strong constitutional protections. Through the 1970s and into the 1980s, recurrent fossil fuel crises created a need for reliable sources of electric generation. KG&E responded with the construction of Wolf Creek. Both state and national energy policy supported that decision. During the construction of Wolf Creek, evolving regulatory requirements caused significant construction cost increases. Adding to those cost increases, the Kansas legislature passed a new law prohibiting rate recognition of financing costs of utility construction projects during the

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[21] In the face of such drastic consequences, and while prosecuting its appeal through the courts, KG&E has taken extraordinary measures to shore up its financial integrity and to maintain some access to the capital markets. The March 11, 1987, Order by the KCC, which was the subject of the KCC's Motion to Dismiss for Lack of Case or Controversy, is the most recent example of KG&E's continuing efforts to recover from the effects of the KCC's 1985 Order. The success of those efforts and fortuitous events in the general economy, however, should not prevent the Court from finding that the rates set by the KCC fail justly to compensate KG&E. Had KG&E done nothing pending appeal to prevent its financial ruin, any victory would have been hollow. That KG&E has managed to survive a disastrous rate order should not justify that rate order. If a utility acts to save itself, the possibility of a successful appeal should not be lost along with its constitutional guarantee of just compensation.

construction period. K.S.A. § 66-128 (App. 2j). That legislative action kept KG&E's short-term utility rates low,[22] but raised the ultimate cost of Wolf Creek by about $1 billion. Thus, KG&E has met its obligation to serve the public even as the public through regulation and legislation has increased the burden. Now that Wolf Creek is providing service to the public, the Constitution requires that those who use the service pay just compensation to KG&E.

III. KG&E HAS BEEN DENIED EQUAL PROTECTION OF THE LAWS

A. The KCC Valued Wolf Creek Differently Than Any Other Generating Plant In Kansas In Violation Of The Fourteenth Amendment

The KCC valued Wolf Creek differently than any other electric plant in Kansas. The KCC Order established two categories of electric generating facilities in Kansas: (1) Wolf Creek and (2) all other electric generating facilities. That classification is not rationally related to any legitimate governmental interest and violates KG&E's right to equal protection of the laws.[23]

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[22] Indeed, one reason that the Wolf Creek rate request was such a large increase over KG&E's current rates is that KG&E's rates had been kept low over the years. For example, the rate increase granted to KG&E in 1979 was described by the Kansas Court of Appeals as "most conservative if not stingy in the extreme." *Kansas Gas and Electric Co. v. Kansas Corporation Comm'n*, 5 Kan. App.2d 63, 65, 612 P.2d 184, 186 (1980).

[23] In *Hope*, this Court restricted the scope of review for cases in which utility rates are challenged as confiscatory. The Court stated that in such cases courts should focus on the end result reached and not the method used. *Hope*, 320 U.S. at 602. This limited scope of review should not apply to utilities' claims that their equal protection rights have been violated. In a case involving equal protection, the issue is whether the utility received equal treatment, not

The equal protection clause of the Fourteenth Amendment protects persons from arbitrary discrimination by the States. In the sphere of economic regulation, the equal protection clause allows reasonable legislative[24] classifications that draw distinctions between dissimilar persons and property. *See, e.g., Ferguson v. Skrupa*, 372 U.S. 726, 732 (1963); *Tigner v. Texas*, 310 U.S. 141, *reh'g denied*, 310 U.S. 659 (1940). States may not, however, invidiously discriminate against similarly situated persons or create arbitrary classifications that bear no rational relationship to a legitimate governmental interest. *New Orleans v. Dukes*, 427 U.S. 297 (1976).[25] In valuing Wolf Creek differently than all other generating plants in Kansas, the KCC has created an arbitrary classification.

The Kansas ratemaking statute charges the KCC with determining the "reasonable value" of all utility property used and required to be used to serve the public in Kansas. K.S.A. § 66-128. (App. 2j) This provision of the statute has existed in substantially similar form since 1911. Except for this case, the KCC has always applied this provision of the statute by using net original cost as the single measure of value for all utility assets in Kansas. In setting rates for KG&E, however, the KCC did not use a single measure of value for all KG&E assets. The KCC valued all KG&E assets except Wolf Creek

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whether the overall level of rates is proper. The right to equal protection cannot be denied even if rates are found not to be confiscatory.

[24] State ratemaking is a legislative act. *Cf. Atchison, Topeka & S. F. R. Co. v. Pub. Util. Comm'n*, 346 U.S. 346, 348 (1953).

[25] In recent years, this Court has refused to uphold various governmental actions because the action bore no relationship to a legitimate state interest, the state interest was not legitimate, or both. *Cleburne v. Cleburne Living Center, Inc.*, 473 U.S. 432 (1985); *Hooper v. Bernalillo County Assessor*, 472 U.S. 612 (1985); *Metropolitan Life Insurance Co. v. Ward*, 470 U.S. 869, *reh'g denied*, 471 U.S. 1120 (1985); *Zobel v. Williams*, 457 U.S. 55 (1982).

at their net original cost. The KCC singled out Wolf Creek for valuation at a so-called economic value of $1290/kW (App. 108c), based upon the supposed cost of building a hypothetical coal-fired plant, instead of using Wolf Creek's prudent net original cost of $2456/kW. In doing so, the KCC established an arbitrary classification that is not rationally related to any legitimate governmental interest and therefore violates KG&E's right to equal protection.

B. There Is No Rational Way To Distinguish Wolf Creek From Other Kansas Electric Generating Plants For Valuation Purposes

Wolf Creek produces electricity for consumers in Kansas. The only difference between Wolf Creek and other Kansas generating plants is the fuel used to produce electricity. Wolf Creek uses uranium (currently one of the cheapest fuels available) and other plants use some form of fossil fuel (primarily coal or natural gas). The benefits that the public receives from the electricity produced at Wolf Creek are no less than the benefits received from electricity produced at any other generating plant in Kansas. Wolf Creek's use of nuclear fuel rather than fossil fuel does not provide any basis—rational or otherwise—for valuing Wolf Creek differently than other plants.[26]

The equal protection clause allows states to impose more stringent requirements on certain businesses if such regulations are necessary for the safety and protection

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[26] The KCC's actions are particularly irrational considering that Wolf Creek may provide greater benefits to KG&E's customers than other generating plants because Wolf Creek uses low cost nuclear fuel that is readily available. The lower fuel cost results in lower operating costs and a stable supply of uranium reduces the need for expensive foreign fuels. Not surprisingly, the KCC has compelled KG&E to pass on to retail customers all of the fuel savings of $44 million attributable to Wolf Creek during its first year of service.

of the public. A particularly dangerous business may justify imposition of special measures to secure life and property. The state may not arbitrarily impose on even a dangerous business, however, financial burdens not related to the special dangers that the business presents. *Gulf C.S.F. R. v. Ellis*, 165 U.S. 150, 157-59 (1897) (the hazards of a railroad do not justify a special duty to pay debts). Thus, nothing about a nuclear facility justifies treating it differently than other generating plants for ratemaking purposes.[27]

The KCC's decision to treat Wolf Creek differently for ratemaking purposes than any other power plant in Kansas is irrational. KG&E's other generating facilities, including five modern coal-fired plants, were valued at net original cost, rather than their apparently much higher economic value of $1290/kW. If the KCC believes economic value is the proper valuation method for ratemaking purposes, then KG&E's remaining facilities should be included in rate base at their economic value. Regardless of the valuation method chosen, the KCC must apply that method consistently to all of KG&E's generating plants. All electric generating plants in Kansas produce an identical product for the same purpose, and they must be valued in a consistent, nondiscriminatory fashion.

The KCC's only justification for valuing Wolf Creek differently than KG&E's other generating plants was that the plant was too expensive. (App. 72c). Wolf Creek's cost is not an attribute that justifies distinguishing it from KG&E's other generating plants for ratemaking purposes. Such an approach is akin to using a different appraisal method for real estate tax purposes for a $500,000 house than a $100,000 house just because the

[27] The government may treat a nuclear facility differently than fossil fuel facilities for purposes other than ratemaking. Classifying nuclear facilities differently than fossil facilities for safety purposes clearly is permissible. In fact, the federal government imposes more stringent safety standards on nuclear facilities.

first house is more expensive. Both properties are houses, and they must be appraised using the same method. Similarly, the KCC, although free to use any valuation method it chooses, must use a consistent method for valuing all generating plants.

C. The Valuation Method Selected For Wolf Creek Is Not Rationally Related To A Legitimate Governmental Interest

Wolf Creek is the only plant in Kansas that has been valued for ratemaking purposes at less than its *actual* prudent cost. The only reason that the KCC gave for valuing Wolf Creek differently was that valuation at full prudent cost would result in high utility rates. Although concern for high utility rates may be a legitimate state interest, valuation of Wolf Creek as if it were a coal-fired plant is not rationally related to the goal.[28] *Cf. Logan v. Zimmerman Brush Co.*, 455 U.S. 422, 439 (1982) (asserted governmental purpose was so speculative and attenuated that the rationale amounted to no more than an exercise of strained imagination); *Metropolitan Life Insurance Co. v. Ward*, 470 U.S. 869 (tax discrimination against foreign businesses must bear a rational relationship to a legitimate state interest). The KCC's discriminatory valuation method is not rationally related to its goal. Instead, the KCC has simply decided to penalize KG&E for building a nuclear power plant by treating Wolf Creek for ratemaking purposes less favorably than any other electric generating facility in Kansas. This the KCC may not do. The KCC must apply any valuation method even-handedly, not just to a single generating plant.

One permissible method of dealing with the KCC's concern over Wolf Creek's high cost would be for the KCC

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[28] States have a legitimate interest in the continued provision of adequate and reliable electric service to their citizens. Although states also may have an interest in electric utility rates that are not set at an exorbitant level, that interest cannot be achieved by denying the utility equal protection of the laws or setting rates at a level that is confiscatory.

to disallow costs that were imprudently incurred. The KCC, however, excluded only 10 percent of Wolf Creek as imprudent. (App. 46c-47c, 55c). Those costs are not at issue here. Wolf Creek's cost resulted from factors beyond KG&E's control: inflation, the cost of complying with new NRC health and safety regulations and the construction financing charges which under Kansas policy could not be recognized in rates until the plant was placed in commercial operation.[29] Nothing related to the prudent costs of Wolf Creek provides any basis for adopting a different valuation method for Wolf Creek than for any other generating plant in Kansas.

The KCC undoubtedly felt great political pressure to keep KG&E's rates low. Electric utilities—particularly those that operate nuclear power plants—are extremely unpopular in certain circles. The purpose of the equal protection clause is to guarantee that politically unpopular groups will not suffer discrimination through state action. *See, e.g., Lucas v. Forty-Fourth General Assembly of Colorado*, 377 U.S. 713 (1964) (personal rights are to be protected against the will of the majority); *Cleburne v. Cleburne Living Center*, 473 U.S. 432 (a city may not avoid the strictures of the equal protection clause by deferring to the wishes or objections of some faction of the body politic). The KCC adopted a previously-unused valuation method for the purpose of setting politically-acceptable rates. As a result, the KCC singled out Wolf Creek for unfair treatment.

The valuation method used by the KCC for Wolf Creek results in an arbitrary classification that is not rationally related to any legitimate governmental interest. Application of a new valuation method to a single asset in KG&E's rate base is not a rational way to achieve the

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[29] When construction financing costs are not recognized in rates until construction is complete, the utility accrues financing charges on the "bricks and mortar" cost until the plant is included in rate base. The financing charges for Wolf Creek increased the final cost by $1 billion.

result desired by the KCC, and it is a violation of KG&E's equal protection rights.

CONCLUSION

The KCC Order setting rates for KG&E violates the Fifth and Fourteenth Amendments to the United States Constitution because it does not provide KG&E just compensation. The Order also denies KG&E equal protection of the laws as required by the Fourteenth Amendment because it results in an improper classification that bears no rational relationship to a legitimate state interest. Therefore, this Court should reverse the Kansas Supreme Court's affirmance of the KCC Order and declare the rates set for KG&E to be confiscatory and in violation of KG&E's right to equal protection of the laws. This case should be remanded to the Kansas Supreme Court with instructions to apply the proper constitutional standards in reviewing the KCC Order to ensure that KG&E's rates are not set in violation of KG&E's right to equal protection and are set at a level that is not confiscatory.

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Nos. 86-781 & 86-793

IN THE
Supreme Court of the United States
OCTOBER TERM, 1986

KANSAS GAS & ELECTRIC COMPANY,
Appellant,
v.
STATE CORPORATION COMMISSION
OF THE STATE OF KANSAS,
Appellee.

KANSAS CITY POWER & LIGHT COMPANY,
Appellant,
v.
STATE CORPORATION COMMISSION
OF THE STATE OF KANSAS,
Appellee.

On Appeal from the Supreme Court of Kansas

MOTION FOR LEAVE TO FILE BRIEF *AMICUS CURIAE* AND BRIEF *AMICUS CURIAE* OF THE EDISON ELECTRIC INSTITUTE IN SUPPORT OF JURISDICTIONAL STATEMENTS

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STATE CORPORATION COMMISSION
OF THE STATE OF KANSAS,
Appellee.

On Appeal from the Supreme Court of Kansas

MOTION FOR LEAVE TO FILE BRIEF *AMICUS CURIAE*

Pursuant to Rules 36 and 42 of the Rules of the United States Supreme Court (the Court), the Edison Electric Institute (EEI) respectfully moves this Court for leave to file the brief *amicus curiae* annexed hereto.[1]

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[1] While the appellants and the Johnson County Joint Intervenor Group have consented to the filing of the attached brief *amicus curiae*, the State Corporation Commission of the State of Kansas, Attorney General of the State of Kansas, Alliance for Liveable

INTEREST OF EDISON ELECTRIC INSTITUTE

EEI is the association of the nation's investor-owned electric utility companies. Its members serve 96 percent of all customers of the investor-owned segment of the electric utility industry and serve 73 percent of the nation's consumers of electricity.

Over the last four decades the Fifth and Fourteenth Amendments' constitutional limitations on state ratemaking authority have been etched into the law. Since decisions in *Federal Power Commission v. Natural Gas Pipeline Co.*, 315 U.S. 575 (1942) and *Federal Power Commission v. Hope Natural Gas Co.*, 320 U.S. 591 (1944), this Court has freed state regulatory commissions to employ whatever ratemaking methods or formulas they may choose so long as the "end result" of state rate orders is a just and reasonable balancing of investor and consumer interests. *Hope* and its progeny [2] require state commissions to protect ratepayers from "exploitative" rates and, to the extent it may be accomplished without injuring legitimate public interests, to provide a return on investment sufficient to maintain the financial integrity of the company.

Increasingly in recent years, and starkly illustrated in this particular case, courts and commissions in effect have sacrificed the financial security of utilities when fashioning a purported balance of the customer and investor interests required by *Hope*. In doing so, these bodies have misapplied the *Hope* doctrine. The decisions

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Electric Rates, and Cities of Wichita, Cheney, Clearwater, Derby, Garden Plain, Goddard, Kechi, Potwin and Whitewater, Kansas have not consented to EEI's participation. The letters providing consent have been filed with the Clerk of the Court.

[2] See, *e.g.*, *In re Permian Basin Area Rate Cases*, 390 U.S. 747 (1968); *Federal Power Commission v. Memphis Light, Gas & Water Division*, 411 U.S. 458 (1973).

of the Kansas Corporation Commission (KCC) in this case, endorsed as they were by the Kansas Supreme Court, are an extreme example. The Kansas Court made scant mention of the *Hope* criteria, and made no effort to determine if the "end result" of the KCC's orders represented a balance of ratepayer and investor interests. Yet, as the jurisdictional statements of Kansas City Power & Light Co. (at pp. 6-7, 11-13) and of Kansas Gas and Electric Co. (at pp. 14-15) make absolutely clear, the financial consequences for appellants—and, in the long run, for their investors *and* ratepayers—are ominous.

This appeal represents a critical juncture both for the nation's investor-owned electric utilities and for the rule of law established by this Court in *Hope*. For the *Hope* doctrine to have meaning and continuing validity, the Court must remind state regulators that the investor interest component of the *Hope* equation is more than a hollow phrase to be honored in the breach. Reaffirmation of the *Hope* doctrine can wait no longer. Currently 22 nuclear generating units are in various stages of construction or completed awaiting final rate decisions, representing more than $65.5 billion of current and projected capital investment. If the grim trend of recent disallowances continues unchecked, investors could face confiscatory disallowances of billions of dollars of invested capital, representing a substantial portion of the common stock equity of companies with nuclear units. While the focus of this case is on investment in nuclear units, the principles at stake apply with equal force to power plants using other fuels and to other utility investments subject to ratemaking.

As the national association of investor-owned electric utilities, EEI is in a position to reflect the impact of the issues raised in this appeal from a broad perspective. The attached brief *amicus curiae* demonstrates that the questions arising in the instant case are substantial, with

broad future implications for the nation's electric utilities, their ratepayers and the investors who provide the capital necessary to maintain the reliability and effectiveness of the nation's electric utility systems.

CONCLUSION

For the reasons set forth above and in the attached brief, EEI urges this Court to grant its motion for leave to file the attached brief as *amicus curiae.*

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January 15, 1987

QUESTIONS PRESENTED

Edison Electric Institute adopts the questions presented set forth in the jurisdictional statements of appellants Kansas Gas and Electric Company and Kansas City Power & Light Company.

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On Appeal from the Supreme Court of Kansas

BRIEF *AMICUS CURIAE* OF EDISON ELECTRIC INSTITUTE IN SUPPORT OF THE JURISDICTIONAL STATEMENTS

Edison Electric Institute (EEI) submits its brief *amicus curiae* in support of the appeals filed by Kansas Gas and Electric Company (KGE) and Kansas City Power & Light Company (KCPL).

INTEREST OF *AMICUS CURIAE*

EEI is the national association of investor-owned electric utility companies in the United States. Its members serve 96 percent of all customers of the investor-owned

segment of the industry and 73 percent of the nation's electricity users. Appellants KGE and KCPL are both EEI members.

For more than four decades, decisions of this Court have required that federal and state regulatory agencies approving public utility rates ensure a balance between investor and consumer interests. Notwithstanding these decisions, the Kansas Supreme Court (Kansas Court) has affirmed orders of the State Corporation Commission of Kansas (KCC) which disallowed (for current return purposes) approximately $1.2 billion of what the KCC determined to be appellants' prudent investment in the Wolf Creek nuclear generating station subject to KCC jurisdiction. As demonstrated in appellants' jurisdictional statements, this staggering sum consists of more than three-fourths of the companies' prudent investment in the unit subject to Kansas ratemaking authority. These massive disallowances have tilted the balance between investor and consumer interests beyond all reason in favor of consumers (although consumer interests may very well be harmed in the long run), thereby effecting a confiscation of investors' capital.

While apparently believing such actions benefit consumers, state rate regulatory commissions which have taken or are considering such actions are in fact being short-sighted. Clearly, such state regulatory commission actions severely undermine the very basis of our economic system, which is designed to encourage private investment. Less clear, but equally true, such actions will ultimately increase the cost of capital in order to account for heightened investor risk, thereby increasing the rates that consumers must pay over time for electricity.

As detailed in the Argument below, such disallowances could deny investors a return on billions of dollars of investment in investor-owned electric utility companies with nuclear plants, representing a substantial portion of the companies' common stock equity. These companies —virtually all of whom are EEI members—include: (1)

30 electric utilities that own interests in 23 nuclear power generating units that have been completed since 1982, 15 of which have been subject collectively to more than $6.4 billion in disallowances; (2) five electric utilities that own interests in four nuclear power generating units that have been completed and placed in service but for which final determinations of the rate treatment have not yet been made; and (3) 25 electric utilities that own interests in 18 nuclear power generating units that either are under construction or have not yet been placed in service and accorded final ratemaking treatment.

SUMMARY OF ARGUMENT

For decades the essential basis for public utility regulation has been an implicit agreement between the utility and consumers: the utility provides safe and reliable electric service at just and reasonable rates to all who seek service within its service territory and relinquishes an opportunity to earn unlimited profits on successful investments; in return, the utility is entitled to rates sufficient to cover all costs prudently incurred in fulfilling its service obligations, including the going cost of capital. The parameters for utility ratemaking and the balance between consumer and investor interests within which utilities are to recover the cost of providing service and a return on investment were articulated by this Court over 40 years ago in *Federal Power Commission v. Hope Natural Gas Co.*, 320 U.S. 591 (1944). State regulatory commissions may use a variety of methods of setting rates, subject only to the ultimate constitutional requirement that the "end result" be a just and reasonable balancing of consumer and investor interests within the criteria established by *Hope* and its progeny.

Over the last 15 years, events have conspired to challenge the implicit bargain between consumers and investors. The oil embargo and OPEC pricing actions of the 1970's, the concomitant increases in the price of coal, and customer responses to increased prices essentially invalidated many assumptions underlying utilities' projec-

tions of need for future generating capacity and the cost and availability of different types of generating plants. The massive changes in regulatory requirements mandated by the Nuclear Regulatory Commission (NRC) for nuclear power plants and the resulting delays in the completion of such plants during a period of rapid inflation and high costs of capital greatly increased the costs of such plants. Enactment of the Public Utility Regulatory Policies Act and the Power Plant and Industrial Fuel Use Act in 1978, in large part a legislative response to the perceived need to diversify fuel use and to encourage alternative sources of electric supply, further changed the regulatory landscape.

Yet throughout this turmoil, utilities, shouldering the obligation to provide reliable electric supply, continued to construct additional sources of generation as part of the *quid pro quo* implicit in the nation's system of utility regulation. Utilities undertook the long-range tasks of planning and constructing new facilities, many building large, baseload nuclear generating units that were themselves encouraged by the federal policy established in the Atomic Energy Act.

Construction of large nuclear units begun in the 1970's has taken or will take as many as 15 or more years from inception to completion. During this time, federal safety requirements and financing and construction costs fueled by inflation have driven up the total cost of nuclear units. Similarly, the regulatory treatment afforded new generating units has changed drastically. This case represents a paradigm of the whipsaw effect of this recent and troubling trend. Despite the fact that (1) the utilities in this case were endeavoring in good faith to uphold their end of the regulatory bargain, *i.e.*, to provide an adequate energy supply for customers at a reasonable rate, (2) the Wolf Creek plant was developed because express federal policies encouraged nuclear capacity and limited other options, (3) the unit was constructed at well below the average cost for nuclear units and (with one exception) faster than any other nuclear unit in the

post-Three Mile Island era, and (4) the unit has been enormously successful in operation, investors who provided billions of dollars to finance construction of the facility are being denied a current return on more than three-quarters of the prudent investment in the unit.

Under the guise of *post hoc* "prudence" inquiries and invoking the rubric of "risk sharing" and "assumption of the risk," regulators have slashed investments in large nuclear facilities from utilities' rate base. Ultimately, investors have been forced to bear the financial burden and consequences of completed projects considered after the fact by regulators to be undesirable. In a sense, the regulatory bargain in many states has been transformed into a "heads I win, tails you lose" proposition where the utility investors can never win. The denial of investors' opportunity to earn a market-justified profit on successful investments and the utility's duty to provide service are still held rigidly in place; however, in cases where regulators after the fact deem investments to be unneeded or unduly costly, massive disallowances preclude the utility from earning revenues sufficient to cover its cost of capital, and investors' funds are being confiscated. The asymmetry implicit in a regulatory system which produces unlimited investor risk but provides investors an opportunity to earn only a limited return on their investment can only drive up the cost of capital for utilities and drive up rates for customers in the long run.

As evidenced by the huge disallowances, state regulators have clearly lost sight of this Court's holdings in *Hope* and its progeny. The "end result" of the KCC decisions and others like them is not the balance of interests delineated by this Court. Enormous disallowances of investment in functioning generating units, not compelled by countervailing ratepayer interests, are inconsistent with the constitutional rule. As shown below, the future consequences of a continuing misapplication of *Hope* could be confiscation of investor capital amounting to billions of dollars.

These appeals present, in clearly delineated and sharply focused fashion, important issues which have potentially fateful consequences for future investment in the nation's electrical power industry. Thus, the issue of whether state legislators, commissions and courts may continue to disregard the key holdings of this Court in connection with the application of the Fourteenth Amendment to utility rate regulation is a matter of national importance.

REASONS WHY THE QUESTIONS PRESENTED ARE SO SUBSTANTIAL AS TO REQUIRE PLENARY CONSIDERATION FOR THEIR RESOLUTION

EEI fully endorses the questions presented and arguments in the jurisdictional statements of appellants KGE and KCPL. These briefs demonstrate that the KCC decisions, affirmed by the Kansas Court, violated appellants' rights under the Fifth and Fourteenth Amendments to the U.S. Constitution and, as KGE shows, violated the companies' rights to equal protection and procedural due process. Our argument below focuses on the fact that the KCC decisions effect a confiscation of the companies' property in contravention of the principles expressed by this Court in *Federal Power Commission v. Hope Natural Gas Co.*, 320 U.S. 591 (1944).

I. State Ratemaking Agencies And Courts Have Undermined And Continue To Undermine The Constitutional Framework For State Regulation Of Utility Rates Established By This Court.

Beginning a century ago in *Railroad Commission Cases*, 116 U.S. 307 (1886), this Court established the framework for the relationship among consumers, investors and government in the financing and conduct of regulated utility enterprises. For a period, beginning with *Smyth v. Ames*, 169 U.S. 466 (1898) and until the late 1930's, this Court sought to prescribe specific ratemaking formulas and methodologies to be employed in determining whether Fourteenth Amendment constraints had been violated. However, in *Federal Power Commission v. Natural Gas Pipeline Co.*, 315 U.S. 575 (1942)

and *Federal Power Commission v. Hope Natural Gas Co.*, 320 U.S. 591, 603 (1944), the Court abandoned that approach and substituted the "balancing of investor and consumer interests" and "end result" criteria. In *In re Permian Basin Area Rate Cases*, 390 U.S. 747, 770 (1968), this Court held that the "just and reasonable" standard of the Natural Gas Act as applied in *Hope* "coincides" with the applicable constitutional standards. *See also Federal Power Commission v. Memphis Light, Gas & Water Division*, 411 U.S. 458, 474 (1973).

Following this Court's directive, state ratemaking agencies and appellate courts, which had struggled to apply *Smyth v. Ames*, adopted the *Hope* criteria.[1] For a time, particularly in a period of relatively stable and often decreasing (in real terms) price levels for electricity, this produced predictable and workable results. Largely based on the pronouncements of this Court, hundreds of billions of dollars were invested in public utility facilities without governmental appropriations or guarantees. As a result, unparalleled electric utility service has been provided throughout the United States.

The pronouncements of this Court have been predicated on the principle that the Fourteenth Amendment (with its incorporation of the "taking" clause of the Fifth Amendment) establishes constraints on the expropriation of such investments by state legislatures and their delegates, state administrative agencies, through the prescription of utility rates. Indeed, many of the pronouncements of this Court on the subject have been, from time to time, directly reflected in state ratemaking statutes.

However, beginning in the mid-1970's, the nation experienced strident opposition in some quarters to nuclear

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[1] *See, e.g., Southwestern Bell Telephone Co. v. State Corporation Commission*, 192 Kan. 39, 386 P.2d 515, 530, 533, 547 (Kan. 1963); *Capital Transit Co. v. Public Utilities Commission of the District of Columbia*, 93 U.S. App. D.C. 194, 213 F.2d 176, 184, 186 (D.C. Cir. 1953), *cert. denied*, 348 U.S. 816 (1954).

power plants, rapid inflation, the OPEC monopolistic pricing of oil (and the attendant increases in the prices of other fuels), and, in response to higher prices, a reduction in the growth of demand for electricity. These forces combined to cause state governmental leaders, legislators and, not surprisingly, rate regulators to search for an escape from approving utility rate requests that resulted in ever-increasing customer rates.[2] Some state commissions found an escape, shunting aside constitutional constraints on public utility ratemaking. These developments are now producing a result in which state rate regulation often is tantamount to a massive confiscation of capital provided by utility investors.

The Kansas Court purported to recognize that the *Hope* decision was the "leading case in this area" (Appellants' Appendix A-9a) and that in *Permian Basin* this Court held that the "just and reasonable" standard of the Natural Gas Act as applied in *Hope* "coincides" with the applicable constitutional standards (A-10a). Nevertheless, by misapplying *Hope* and such later cases as *Memphis Light* (A-12a), the Kansas Court reached conclusions contrary to the holdings in *Hope*, *Permian Basin* and *Memphis Light*.

Specifically, neither the KCC nor the Kansas Court ever addressed the issues presented to them in terms of the balance between customer and investor interests required by *Hope*. At no point did they even refer to, let alone determine, the question of whether the rates and disallowances prescribed by the KCC were necessary to prevent "exploitation" (*Hope*, *supra*, 320 U.S. at 610)[3]

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[2] Approximately 90 percent of electric utility revenues are, and for many years have been, controlled by tariffs prescribed by state ratemaking bodies.

[3] In light of the Court's reference in *Hope* (320 U.S. at 603) to the concurring opinion of Justice Brandeis in *Southwestern Bell Telephone Co. v. Missouri*, 262 U.S. 276, 291 (1923), it appears that the Court viewed "exploitative" rates as those synonymous with rates that are "prohibitive, exorbitant, or unduly burdensome to the public." *Id.* at 290 n.2.

of KGE or KCPL customers or to serve some other identified public interest. Likewise, at no point did they specifically address the question whether the rates prescribed by the KCC would result in "enough revenue not only for operating expenses but also for the capital costs of the business [which] include service on the debt and dividends on the stock" (*id.* at 603)—despite the fact that had they thought about it, they certainly must have recognized that such rates could not produce sufficient revenues for those purposes.

The investor components of the ratemaking equation were clearly stated by this Court in *Hope* and its progeny, leaving no doubt as to what is required. Writing for the majority in *Hope*, Justice Douglas stated that the rates prescribed by the Federal Power Commission (FPC) should:

> enable the company to operate successfully, to maintain its financial integrity, to attract capital and to compensate its investors for the risks assumed.

320 U.S. at 605. *See also Panhandle Eastern Pipe Line Co. v. Federal Power Commission*, 324 U.S. 635, 649-50 (1945) (Douglas, J.).

Similarly, Justice Douglas, speaking once again for the Court in *Colorado Interstate Co. v. Federal Power Commission*, 324 U.S. 581, 605 (1945), was insistent that *Hope* did not prescribe:

> . . . a standard so vague and devoid of meaning as to render judicial review a perfunctory process. *It is a standard of finance resting on stubborn facts.*

(Emphasis supplied.) Moreover, in *Permian Basin* this Court reiterated the investor components of the *Hope* criteria in finding that the FPC had properly established rates. See, *e.g.*, 390 U.S. at 805-12.

Hope and its progeny did remove the constraints of particular ratemaking methodologies and formulas which this Court had previously imposed on ratemaking bodies. As a consequence, a ratemaking body has been free to

employ any methods or formulas which it chooses. However, the correlative responsibility of such freedom is that the methods and formulas selected by the ratemaking body must demonstrably produce a result consistent with the balance prescribed by *Hope*. It is not enough for the state ratemaking body to use catch phrases, such as "risk sharing," "balancing of interests," or the like. Rather, that body must test the methods and formulas which *it* chooses against the "standard of finance resting on stubborn facts," and if the results do not meet that standard, that body must go back to the drawing board.

This Court stated in *Permian Basin*, *supra*, 390 U.S. at 792:

> [T]he court must determine whether the order may reasonably be expected to maintain financial integrity, attract necessary capital, and fairly compensate investors for the risks they have assumed, and yet provide appropriate protection to the relevant public interests, both existing and foreseeable. The court's responsibility is not to supplant the Commission's balance of these interests with one more nearly to its liking, but instead to assure itself that the Commission has given reasoned consideration to each of the pertinent factors. Judicial review of the Commission's orders will therefore function accurately and and efficaciously only if the Commission indicates fully and carefully the methods by which, and the purposes for which, it has chosen to act, as well as its assessment of the consequences of its orders for the character and future development of the industry.

As indicated in appellants' jurisdictional statements, the effect of the disallowances of KGE's and KCPL's shares of their investment in Wolf Creek was to reduce to less than 25 percent the portion of prudent investment on which the companies were permitted to earn a current return. The KCC and the Kansas Court did *not* find that the revenues resulting from such rate base allowances would be sufficient to provide "service on the debt," let alone "dividends on the stock," issued by KGE

and KCPL for Wolf Creek. Such a finding would have been impossible. Perhaps for this reason, the KCC and the Kansas Court did not address that issue, notwithstanding the requirements of *Hope*.[4]

The ultimate question presented by these appeals is whether, assuming that such rates would not be exploitative of customers or otherwise inconsistent with the public interest, a state ratemaking body is required by the Constitution to take investor interests into account in fixing rates. The question is substantial in terms of the magnitude of the dollars involved, the current pervasiveness of the issue in rate regulatory proceedings throughout the nation, and its impact on future power supply in the United States and on the very institution of rate regulation itself.

Although this Court has not directly addressed this question in recent years, the compelling thrust of its ratemaking decisions over the past century, beginning with the *Railroad Commission Cases* and continuing with the *Permian Basin* and *Memphis Light* decisions, is that this *is* a federal question to which the answer must be in the affirmative. However, the state courts and commissions clearly require a more current reminder of that fact. In particular, the KCC, among other state commissions, represented to this Court just last term

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[4] If KGE's or KCPL's investment in Wolf Creek had been made by a separate corporate entity with its own securities outstanding in the hands of the public, the consequence of the KCC decisions would be clearly apparent. Such a separate corporation would not have sufficient revenues to enable it to avoid default on its debt service obligations, let alone to meet its preferred and common stock requirements. Only because KGE's and KCPL's investments in Wolf Creek are part of total company assets—and, correspondingly, are only a part of the companies' total outstanding securities—is the effect of the KCC orders somewhat obscured. The fact is that default on the securities issued by KGE and KCPL to finance their interests in Wolf Creek is being avoided only by appropriating to that purpose return realized by the companies' on their other assets.

that the Fourteenth Amendment necessarily represents a check on the power of the states to set rates at what would amount to confiscatory levels. *See Louisiana Public Service Commission v. Federal Communications Commission*, —— U.S. ——, 106 S.Ct. 1890, 1893 (1986). The decisions of the KCC in this case belie its earlier assurances to this Court and point to the necessity for the Court to take jurisdiction and to reaffirm the principles of *Hope*.

II. These Appeals Are Stark Examples Of The National Trend Of Recent Unconstitutional State Ratemaking Disallowances.

These appeals arise out of requests by KGE and KCPL in November 1984 to the KCC for authorization of increased rates, largely to reflect the companies' increased operating and capital costs (less the savings in their fuel costs[5]) associated with their respective 47 percent tenancy-in-common ownership interests in the Wolf Creek nuclear generating station. More fundamentally, however, the Kansas Court recognized (at A-6a and A-9a, respectively):

> The legal issues presented in this case are not peculiar to Kansas but are the result of the national controversy over the construction of nuclear power plants which has developed over the past thirty years.
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> * * * *
>
> Where a nuclear plant had been completed and placed in operation, the state regulatory agency had the problem of determining whether the inflated construction costs of a nuclear facility had to be included in the rate base in a manner which would financially

[5] Even though the KCC decisions allow less than one-fourth of KGE's and KCPL's shares of prudent investment in Wolf Creek for rate of return purposes, the companies have passed along to their customers through fuel adjustment clauses 100 percent of the fuel cost savings attributable to the unit. With the unit operating at nearly a 90 percent capacity factor, KGE has already passed on $44.8 million in fuel cost savings to its customers.

hurt the ratepayers, the consumers, and the general public.[6] It is this same basic problem which was faced by the KCC in the case now before us.

The issue of whether a state ratemaking body is required by the Constitution to take investor interests into account in fixing rates has arisen in recent years primarily in three different contexts:

* (1) The rate treatment to be accorded to the capital and operating costs of those nuclear generating units which, like the Wolf Creek unit, either have been completed and placed in service or are expected to attain that status in the near future (collectively, "the completed nuclear units");

* (2) The rate treatment to be accorded to the capital costs of those nuclear units which have been abandoned prior to completion (collectively, "the abandoned nuclear units"); and

* (3) The rate treatment to be accorded to the capital costs of those nuclear units which for various reasons are not providing service (collectively, "the non-operating nuclear units").

The issues in these appeals involve only those relating to the "completed" and operating nuclear units (Category 1 above), and have not heretofore been presented to this Court in that context.

Between the end of 1982 and the end of 1986, 25 nuclear generating units (including Wolf Creek) were completed, 22 of which have gone into commercial opera-

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[6] The Kansas Court would appear by this statement to have unthinkingly equated the phrase "financially hurt the ratepayers" with the very different standard of "exploitative rates." See p. 8 n.3, *supra*. Moreover, this analysis is inconsistent with *Hope* because it wholly ignores the legitimate interests of investors who supplied capital (in no small part because of state statutory requirements and federal and state governmental policies) and because it fails to recognize that the KCC had a constitutional obligation to balance and harmonize the interests in a meaningful manner. This would have been a relatively straightforward task if the KCC and Kansas Court had been so inclined.

tion.[7] Of the 23 units listed in Table 1 of Appendix A, eight units, involving an aggregate investment of about $14.5 billion, were reflected in rates without significant disallowances by state ratemaking agencies. The remaining 15 units in Table 1 (including Wolf Creek[8]), for which regulatory decisions were complete by December 1986, involved an aggregate investment in excess of $40.2 billion. These units were subjected to rate base, expense or return disallowances aggregating conservatively to at least $6.4 billion. These disallowances amount to about 12 percent of total booked costs of these first two groups of nuclear units (those with and without disallowances) and 16 percent of the total booked costs of only those nuclear units with disallowances.

For four other units (two of which had been subject to rate decisions involving utility co-owners in another state; see Table 1 n.7), which are listed in Table 2 of Appendix A and involve an aggregate investment in excess of $6 billion, the regulatory decisions were not complete as of December 1986. However, if disallowances similar in kind to Wolf Creek and to the other cases cited above were to prevail, the resulting disallowances would amount to billions of dollars.

In addition, at this time there remain 18 nuclear units under construction or not yet in commercial operation with an estimated total cost of more than $59.5 billion.[9] Even assuming that all these units are completed and that the regulatory treatment of such units is no worse

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[7] There is annexed as Appendix A two tables identifying these units and summarizing the rate treatment discussed in the text.

[8] In the Wolf Creek case, some of the disallowances were for current return purposes only and, for purposes of comparison with the other units in Appendix A, are stated in a way which recognizes that some carrying charges are being permitted to accrue.

[9] There is annexed as Appendix B a tabulation of these units and their estimated cost.

than that for the previously completed units—a trend which we fervently hope does not come to pass—investors could be expected to lose billions of dollars of their investment.

On this basis, the total disallowances for present and future completed nuclear units would aggregate to many billions of dollars of investor capital. The burden of these disallowances must fall on the common stock equity investment in companies with these nuclear units. Approximately 35-45 percent of the investment in the electric utility industry takes the form of common stock equity. In the companies with nuclear units subject to these disallowances, the investment in common stock equity totaled about $85 billion as of September 30, 1986. Therefore, the billions of dollars in total disallowances could represent a permanent economic loss of current return on a substantial portion of these companies' total common stock equity. Indeed, depending upon the period for which the disallowances remain in effect, the result of such disallowances may be to wipe out these companies' common stock equity. This would seriously undermine the regulatory compact which has been the basis of electric utility rate regulation in this country for more than four decades.

III. The Kansas Court's Affirmance Of The KCC Orders Abrogates The Compact Underlying The American System Of Utility Rate Regulation.

Like most statutes providing for utility rate regulation, the Kansas Public Utilities Act has long required that electric utilities operating in Kansas furnish reliable and adequate service to existing and future customers and construct facilities for that purpose.[10] Despite recent amendments directed at the Wolf Creek unit, the Kansas statute still reflects in large part the implicit bargain between utility investors and consumers that

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[10] See K.S.A. § 66-101b (A-1j through A-2j). The public utility laws of most states impose comparable requirements.

underlies electric utility regulation. This bargain has been recently described by Dr. Alfred H. Kahn, a leading regulatory economist and former chairman of the Civil Aeronautics Board and of the New York Public Service Commission, who points out: [11]

> The essential basis of public-utility regulation is an implicit bargain between consumers and investors that, in exchange for a monopoly franchise, the company accepts the strict legal obligation to serve all customers on reasonable terms. This means that shareholders accept a return on investment equivalent only to something like the market cost of capital—the minimum that investors must see a reasonable prospect of earning if they are to put up the necessary funds—along with the duty conscientiously to anticipate the future needs of the public and to make whatever investments may be necessary in order to meet them efficiently.
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> This means that if the company makes a particularly successful investment—and there have been many such—the lion's share of the benefit goes to to the consumer. . . .
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> The other side of the bargain is, and has to be, that investors are permitted to earn that same minimum return also on the dollars that they put into investments that turn out sour. If they can earn the cost of capital only on the successes and not on the failures, it follows that they will earn less than the cost of capital on all their dollars, taken together. And investors won't play that game once they understand that those are going to be the rules.
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> That does not mean consumers have to bear the costs of grossly imprudent ventures; that is the justification for public utility commissions determining the prudency of utility investments. No investors can legitimately expect that. But the only test of prudence consistent with the regulatory bargain has to be as of the time the commitments were made.

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[11] *Wall Street Journal*, Aug. 15, 1985, at 26, col. 3.

In light of their obligation to provide reliable and economic service, KGE and KCPL were required to examine the feasibility and financial consequences of employing nuclear energy. The express national policies promoting nuclear power and discouraging the use of natural gas or imported oil for electric boiler fuel, coupled with the financial and environmental benefits from nuclear generation, virtually assured the selection of the nuclear option. Indeed, if the almost universal forecasts had come true, KGE and KCPL would have been justifiably criticized if they had not selected the nuclear option.

Similarly, the rapid growth in electric demand (approximately seven percent per year compounded, or a doubling within a decade) preceding the decision to go forward with Wolf Creek created concern about potential shortages—not excesses—of generating capacity. Nor were KGE and KCPL alone in this regard. On the contrary, as the Kansas Court recognized, "[b]etween 1965 and 1975, the nuclear industry was perhaps the fastest growing major industry in the United States" (A-6a).

This was the general experience of utilities constructing nuclear units during this same time period, whether they were agencies of the United States (such as the Tennessee Valley Authority) or the states (such as the Washington Public Power Supply System), rural electric cooperatives, or investor-owned electric utilities. Recognition that appellants were at all times laboring to uphold their end of the implicit bargain when constructing the Wolf Creek plant is critical. They were pursuing what was and continues to be the most attractive alternative.[12] Neither the KCC nor the Kansas Court held that KGE and KCPL should not have undertaken

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[12] Indeed, in view of the lower fuel and operating costs of Wolf Creek, the KCC could not conclude in its orders that over the life of the unit it would not produce a net benefit to the companies' customers (even given its higher construction cost compared to other types of generating plant). See A-99f.

Wolf Creek. On the contrary, as dissenting Chief Justice Schroeder of the Kansas Court pointed out, counsel for the KCC admitted that the initial decision of the utilities to build a nuclear plant at Wolf Creek was not imprudent (A-47a).

At some point over the eight-year construction cycle of Wolf Creek, circumstances changed. The fallout of the oil embargo and OPEC pricing actions of the 1970's had radically changed the American energy markets, and growth forecasts proved overly optimistic. The accident at Three Mile Island (TMI) and subsequent overhaul of NRC licensing and safety requirements delayed licensing and imposed major new and costly safety measures. Post-TMI changes alone were shown before the Kansas Court to have cost appellants $544 per Kw, *i.e.*, conservatively, at least 54 percent of the increase in construction costs for Wolf Creek were attributable to NRC licensing and safety requirements.[13]

As the Wolf Creek plant neared completion, opponents of the plant girded themselves for battle and worked diligently at the state level to minimize the amount of the costs of the plant to be charged to ratepayers. Seven years after construction of Wolf Creek began in 1977, the Kansas legislature enacted legislation referred to by one commentator as "The Wolf Creek Excess Cost-Excess Capacity Bill." 33 U. KAN. L. REV. 475 (1985).[14] Moreover, as Chief Justice Schroeder observed:

> The KCC, from the time of its initial investigation into the cost overruns at the Wolf Creek plant in 1979, began loading its guns with ammunition for bear to ambush the utilities with rate orders it eventually entered, after the utilities applied to the KCC to authorize a rate increase.

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[13] See Brief for KCPL at 92, *Kansas Gas & Electric Co. v. State Corporation Commission of Kansas*, 239 Kan. 483, 720 P.2d 1063 (Kan. 1986).

[14] *See* K.S.A. §§ 66-128 through 66-128k, as amended by K.S.A. §§ 66-101 *et seq.* (A-1j through A-9j).

(A-48a). Clearly, the regulatory bargain has disintegrated in Kansas. Notwithstanding the utilities' good faith efforts to assure a safe and reliable future power supply for consumers, and reliance upon federal and state law, the KCC decisions in no uncertain terms imposed a massive and unjustifiable regulatory penalty on appellants for what the KCC determined *ex post facto* to be unsatisfactory. The KCC decisions thus effected a confiscation of the utilities' property in violation of the principles expressed by this Court in *Hope* and of the Fourteenth Amendment.

As Dr. Kahn points out, regulatory abrogation of the implicit bargain between consumers and investors deprives the latter of the opportunity to recover the cost of capital. Moreover, the failure to abide by the principles articulated in *Hope* will raise the cost of capital in the long run, thus increasing rates and harming the very customers that the KCC believes it is protecting. The implications of these consequences on a national scale are grave and lend further support to the need for plenary consideration by this Court.

CONCLUSION

EEI joins KGE and KCPL in the belief that the questions raised by their appeals are so substantial as to require plenary consideration, with briefs on the merits and oral argument, for their resolution.

Respectfully submitted,

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APPENDICES

Table 1: Final Ratemaking Treatment for Completed Nuclear Plants

APPENDIX A

Name of Plant	Sunk Costs[1] ($000,000)	Name of Utility	Jurisdiction	AMOUNT OF DISALLOWANCES ($000,000) Imprudence	Excess Capacity	Cost Caps	Economic Value	Other
Units in Commercial Operation (Since 01/01/83 Only)								
Byron 1	$ 2,558	Commonwealth Edison	IL	$ 102	$ 0	$ 0	$ 0	$ 0
Callaway	3,070	Union Electric Company	IL	30	0	0	0	0
Callaway		Union Electric Company	IA	8	0	0	0	0
Callaway		Union Electric Company	MO	384	0	0	0	0
Catawba 1	1,917	Duke Power Company	NC	0	0	0	0	0
Catawba 1		Duke Power Company	SC	0	0	0	0	0
Catawba 2	1,477	Duke Power Company	NC	0	0	0	0	0
Catawba 2		Duke Power Company	SC	0	0	0	0	0
Grand Gulf 1	3,281	Arkansas Power & Light Co.	AR	0	0	0	0	-[2]
Grand Gulf 1		Arkansas Power & Light Co.	MO	0	0	0	0	0
Grand Gulf 1		Louisiana Power & Light Co.	LA	0	0	0	0	-[2]
Grand Gulf 1		Mississippi Power & Light Co.	MS	0	0	0	0	0
Grand Gulf 1		New Orleans Public Service Inc.	Municipal	0	0	0	0	49[3]
LaSalle 1	1,377	Commonwealth Edison Company	IL	0	0	0	0	0
LaSalle 2	1,081	Commonwealth Edison Company	IL	0	0	0	0	0
Limerick 1	3,820	Philadelphia Electric Co.	PA	369	0	0	0	0
McGuire 2	1,083	Duke Power Company	NC	0	0	0	0	0
McGuire 2		Duke Power Company	SC	0	0	0	0	0
Millstone 3	3,825	Central Maine Power Company	ME	0	0	0	0	7[4]
Millstone 3		Central Vermont Pub. Serv. Corp.	VT	0	0	0	0	0
Millstone 3		Connecticut Light & Power Co.	CT	0	0	147[5]	0	72[6]
Millstone 3		United Illuminating Company	CT	0	0	15[5]	0	3[6]
Millstone 3		West. Massachusetts Elec. Co.	MA	0	0	0	109	0
Palo Verde 1	-- [7]	Arizona Public Service Co.	AZ	-[8]	0	0	0	0
Palo Verde 1		El Paso Electric Company	NM	0	0	0	0	0
Palo Verde 1		Southern California Edison	CA	-[9]	0	0	0	0
Palo Verde 2	-- [7]	Southern California Edison	CA	-[9]	0	0	0	0
St. Lucie 2	1,465	Florida Power & Light	FL	0	0	0	0	0
San Onofre 2 & 3	4,491[10]	San Diego Gas & Electric	CA	69[10]	0	0	0	0
San Onofre 2 & 3		Southern California Edison Co.	CA	259[10]	0	0	0	0
Summer 1	1,283	South Carolina Electric & Gas	SC	0	123[11]	0	0	0
Susquehanna 1	1,941	Pennsylvania Power & Light	PA	0	287[11]	0	0	0
Susquehanna 2	2,130	Pennsylvania Power & Light	PA	0	522[12]	0	0	38[13]
Waterford 3	2,840	Louisiana Power & Light Co.	LA	0	0	0	0	284[14]
Wolf Creek	2,992	Kansas City Power & Light	KS	40	221	0	68	0
Wolf Creek		Kansas City Power & Light	MO	126	33	0	0	0
Wolf Creek		Kansas Gas & Electric Co.	KS	125	716	0	194	0
Subtotals:	$40,631			$1,512	$1,902	$ 162	$ 371	$ 453

Name of Plant	Sunk Costs ($000,000)	Name of Utility	Ju di
			Units with
Fermi 2	$ 3,762	Detroit Edison Co.	
			Units with Fuel Loa
Nine Mile Point 2	5,900[16/]	Central Hudson Gas & Elec. Corp.	
Nine Mile Point 2		Long Island Lighting Co.	
Nine Mile Point 2		New York State Elec. & Gas Corp.	
Nine Mile Point 2		Niagara-Mohawk Power Corp.	
Nine Mile Point 2		Rochester Gas & Elec. Corp.	
Shoreham	4,392	Long Island Lighting Co.	
Totals:	$54,685		

1/ Except as otherwise indicated, source of these data is the Plant Construction Activity, 1985, DOE/EIA-0473(85).

2/ It is not possible to quantify the amount of the substantia between Arkansas Power & Light Co. (AP&L) and the Arkansas the Louisiana PSL, because they are disallowances of percen a Federal Regulatory Commission (FERC) approved wholesale r Utilities (MSU) holding company system owns Grand Gulf. Th through sales of power to, inter alia, AP&L, LP&L and other

3/ New Orleans Power Service Inc. (NOPSI) agreed, in a settlem regulating its rates, to forego recovery from ratepayers of incurred for purchases of Grand Gulf power.

4/ Settlement agreement provides for disallowance of 15% of th

5/ Effect of Connecticut statutory cost cap.

6/ Incremental disallowance, in addition to disallowance impos agreement.

7/ Because of accounting methodology used by various owners of available. Unit also listed on Table 2 for companies and j incomplete.

AMOUNT OF DISALLOWANCES ($000,000)

ris-ction	Imprudence	Excess Capacity	Cost Caps	Economic Value	Other
Full Power Operating Licenses					
MI	$ 397	$ 283[15]	$ 0	$ 0	$ 0
ad or Low Power Operating Licenses					
NY	0	0	[17]	0	[17]
NY	0	0	[17]	0	[17]
NY	0	0	[17]	0	[17]
NY	0	0	[17]	0	[17]
NY	0	0	[17]	0	[17]
NY	1,395	0	0	0	0
	$3,304	$2,185	$ 162	$ 371	$ 453

U.S. Department of Energy publication, Nuclear Power

l disallowances agreed to in stipulation agreements
PSC, or between Louisiana Power & Light Co. (LP&L) and
ntages of total operating expenses incurred pursuant to
rate. A generating subsidiary of the Middle South
e subsidiary will recover its investment in the plant
MSU operating subsidiaries.

ent with the New Orleans Council, the body which
this amount of deferred expense which NOPSI had

e investment.

ed by statutory cost cap, provided for by settlement

this project, no total estimated cost numbers are
urisdictions where final ratemaking treatment is

8/ The commission made no disallowance, in this rate case, of $210,000,000 of the Palo Verde No. 1 investment in Ar to refund, pending completion of the commission's pruden

9/ An October, 1986 stipulation agreement provides that dis investment in the three Palo Verde units (the third is n San Onofre Nos. 2 and 3. On the basis of the California investigation, SCE calculates that disallowances for all amount is subject to change if the amount of San Onofre progress) or appeal. No breakdown by unit is available.

10/ The total cost of these two units, and the total disallo PUC issues only one final order on the prudence of the i disallowances for each unit. These amounts represent Sa Edison Co.'s shares of the entire $344,600,000 disallowa utilities, which are not subject to PUC jurisdiction in Unit 2, $1,796,200,000 for Unit 3.
(Unit 1 was completed in 1968.)

11/ This adjustment is a "slice of system" adjustment, i.e., generating units. It is listed here in toto because the excess capacity were precipitated by the addition of the

12/ In this rate case order, the Pennsylvania PUC disallowed investment in Susquehanna 2. The disallowance shown has jurisdictional investment in the unit ($1,494,800,000) b

13/ Disallowance of the cost of a short-term buy-back by Pen interest in the unit. The buy-back was provided for in

14/ Per stipulation agreement.

15/ Investment in other generating plant which will, pursuan recent rate case, be excluded from rate base as excess c

16/ Latest estimate from Niagara Mohawk Power Corp. does not with the plant's main steam isolation valves.

17/ According to a stipulation agreement approved by the New the prudence of the investment. The agreement provides plant's five co-tenants' rate bases will total $4,160,00 earlier by the PSC had been to limit the plant's recover incremental disallowances agreed to in the stipulation h table, because substantial problems of interpretation ha covered by the agreement.

for imprudence. However, rates attributable to inclusion
izona Public Service's rate base remain in effect subject
ce review.

allowances to Southern California Edison Co.'s (SCE)
ot yet completed) shall equal 19.33% of disallowances for
PUC's subsequent final order in the San Onofre prudence
three Palo Verde units should total $50,000,000. This
imprudence disallowance changes on rehearing (currently in

wance thereto, have been combined because the California
nvestment in both units, and did not fully separate the
n Diego Gas & Electric Co's. and Southern California
nce. (The remainder is allocable to non-investor-owned
California.) Total cost per unit is $2,694,300,000 for

it is applied to equal portions of each of the utility's
high reserve margins which resulted in a finding of
new unit.

a return on the common equity component of the utility's
been calculated by multiplying the utility's
y the common equity ratio used in the case (34.9).

nsylvania Power & Light Co., of Allegheny Electric Coop's
the earlier contract for sale of Susquehanna 2 capacity.

t to the Michigan PSC's order in Detroit Edison's most
apacity when Fermi 2 enters commercial operation.

include costs attributed to recently discovered problems

York PSC in August, 1986, ending an investigation into
that the amount of the investment to be included in the
0,000. The effect of two successive cost caps ordered
able cost to approximately $5,200,000,000. The
ave not been apportioned among the co-tenants in this
ve arisen, and it is not clear exactly what plant is

Table 2: Utility Investment in Completed Nuclear Plants in Commercial Operation for Which Rate Action is Pending

Plant	Sunk Costs ($000,000)	Utility	Jurisdiction
Diablo Canyon 1	$3,315	Pacific Gas & Electric Co.	CA
Diablo Canyon 2	2,599	Pacific Gas & Electric Co.	CA
Palo Verde 1	—[1]	El Paso Electric Co.	TX
Palo Verde 1		Public Service Co. of N.M.	NM
Palo Verde 2	—[1]	Arizona Public Service Co.	AZ
Palo Verde 2		El Paso Electric Co.	NM
Palo Verde 2		El Paso Electric Co.	TX
Palo Verde 2		Public Service Co. of N.M.	NM
	$5,914		

[1] Because of accounting methodology used by various owners of this project, no total estimated cost numbers are available. Unit also listed on Table 1 for co-owners and jurisdictions in which final ratemaking treatment has been decided.

Source: *Nuclear Power Plant Construction Activities 1985*-DOE/EIA-0473(85)

APPENDIX B

Table 3: Utility Investment in Nuclear Plants Under Construction or Not Yet in Commercial Operation and Accorded Final Ratemaking Treatment

Utility	Plant	Estimated Final Costs ($000,000)
Arizona Public Service Co.[1]	Palo Verde 3	$ 1,591[2]
Commonwealth Edison Company	Braidwood 1	2,908
Commonwealth Edison Company	Braidwood 2	2,100
Commonwealth Edison Company	Byron 2	2,056
Georgia Power Company	Vogtle 1	6,051
Georgia Power Company	Vogtle 2	2,295
Illinois Power Company	Clinton 1	3,766
Gulf States Utility Company	River Bend 1	3,614
Pub. Service Elec. & Gas Co.[3]	Hope Creek 1	4,180
Pub. Service Company of N.H.[4]	Seabrook 1	4,561
Carolina Power & Light Co.	Shearon Harris 1	3,626
Duquesne Light Company [5]	Beaver Valley 2	4,324
Philadelphia Electric Co.	Limerick 2	3,197
Houston Lighting & Power Co.[6]	S. Texas Project 1	5,495[7]
Houston Lighting & Power Co.[6]	S. Texas Project 2	—
Texas Utilities	Commanche Peak 1	5,465[7]
Texas Utilities	Commanche Peak 2	—
Cleveland Electric Illuminating Co.[8]	Perry 1	4,223
		$59,452

[1] Other utility company owners include El Paso Electric Company, Southern California Edison Company and Public Service Company of New Mexico.

[2] Amount does not include Allowance for Funds Used During Construction (AFUDC).

[3] Jointly owned with Atlantic City Electric Company.

[4] Jointly owned with United Illuminating Company, New England Power Company, EUA Power Corp., Connecticut Light & Power Company and Commonwealth Electric Company.

[5] Jointly owned with Ohio Edison Company, Cleveland Electric Illuminating Company and Toledo Edison Company.

[6] Jointly owned with Central Power & Light Company.

[7] Cost data are sums for both units at the site.

[8] Jointly owned with Ohio Edison Company, Pennsylvania Power Company, Duquesne Light Company and Toledo Edison Company.

Source: *Nuclear Power Plant Construction Activities 1985*-DOE/EIA-0473(85)

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Nos. 86-781 & 86-793

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Appellant,
v.
STATE CORPORATION COMMISSION
OF THE STATE OF KANSAS,
Appellee.

KANSAS CITY POWER & LIGHT COMPANY,
Appellant,
v.
STATE CORPORATION COMMISSION
OF THE STATE OF KANSAS,
Appellee.

On Appeal from the Supreme Court of Kansas

MOTION FOR LEAVE TO FILE BRIEF *AMICUS CURIAE* AND BRIEF *AMICUS CURIAE* OF THE EDISON ELECTRIC INSTITUTE

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On Appeal from the Supreme Court of Kansas

MOTION FOR LEAVE TO FILE BRIEF *AMICUS CURIAE*

Pursuant to Rules 36 and 42 of the Rules of the United States Supreme Court (the Court), the Edison Electric Institute (EEI) respectfully moves this Court for leave

to file the brief *amicus curiae* annexed hereto.[1] EEI previously submitted its Brief *Amicus Curiae* in Support of Appellants' Jurisdictional Statements pursuant to its Motion for Leave to File its Brief *Amicus Curiae* which was granted by this Court on February 23, 1987. 55 U.S.L.W. 3569 (Feb. 24, 1987).

INTEREST OF EDISON ELECTRIC INSTITUTE

The Edison Electric Institute (EEI) is the association of the nation's investor-owned electric utility companies. Its members serve 96 percent of all customers of the investor-owned segment of the electric utility industry and serve 73 percent of the nation's consumers of electricity.

The Fifth and Fourteenth Amendments' constitutional limitations on state ratemaking authority have long been etched into the law. Moreover, since decisions in *Federal Power Commission v. Natural Gas Pipeline Co.*, 315 U.S. 575 (1942), and *Federal Power Commission v. Hope Natural Gas Co.*, 320 U.S. 591 (1944), this Court has freed state regulatory commissions to employ whatever ratemaking methods or formulas they may choose so long as the "end result" of state rate orders meets constitutional standards requiring protection of investor interests.

Historically, the regulatory system in this country has required public utilities to plan for and provide safe and reliable service to all who seek service, both present and future, and to forego unregulated, market-based profits in provision of such service. In return, utilities tradi-

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[1] EEI has received consent for filing this brief *amicus curiae* from appellants and from Kansas Legal Services, Inc., Kansas Electric Power Cooperative, Inc., the Johnson County Joint Intervenor Group, the State Corporation Commission of the State of Kansas, the Attorney General of the State of Kansas, and the Cities of Wichita, Cheney, Clearwater, Derby, Garden Plain, Goddard, Kechi, Potwin and Whitewater, Kansas. The letters providing consent have been filed with the Clerk of the Court. Only the Alliance for Liveable Electric Rates has refused to grant consent to EEI's participation as *amicus* in this appeal.

tionally are afforded an opportunity to recover the legitimate costs of providing service, including a reasonable, but regulated return to investors. And under *Hope*, regulators have been required to protect investor interests in rates sufficient to meet the cost of service and capital obligations as a prerequisite for a finding of constitutionally just and reasonable rates.

Much has changed in the world of regulated utilities in the years since this Court first articulated the constitutional standard against which utility rate orders must be measured. The turbulent energy markets of the 1970's have produced much higher than forecasted fuel prices, which in turn have disrupted historic trends in growth of electricity demand. At the same time, construction projects undertaken to serve projected demand encountered long lead times, rapid inflation, high capital costs, and shifting regulatory requirements. These developments raised unprecedented financial and regulatory obstacles to successful completion of new power plants. As a result, capacity costs of new plants have been considerably higher than those of plants built previously by utilities. The consequent negative regulatory reaction to these projects has in some instances shaken the very foundation of the system of providing utility service.

Increasingly in recent years, and starkly illustrated in this particular appeal, courts and commissions have neglected the financial integrity of utilities while purportedly undertaking a balance of customer and investor interests under *Hope*. In doing so, these bodies have either failed to apply, or have misapplied, the constitutional doctrine. The decisions of the Kansas Corporation Commission (KCC) in this case, endorsed as they were by the Kansas Supreme Court, are an extreme example. Neither the Kansas Court nor the KCC meaningfully applied the *Hope* criteria, and neither attempted to determine the impact of the KCC's orders on investors. Yet, as the jurisdictional statements make absolutely clear, the finan-

cial consequences for appellants—and, in the long run, for their investors *and* ratepayers—are ominous.

Reaffirmation of the constitutional limits on ratemaking can wait no longer. As detailed in EEI's Brief in Support of Jurisdictional Statements, billions of dollars have been invested in nuclear generating units that are in various stages of construction or are completed awaiting final rate decisions. If regulators allow their decisions concerning utility investments to be guided by hindsight, and continue to tip the balance away from investors or, worse, ignore investor interests altogether, investors could face confiscatory disallowances of billions of dollars of prudently invested capital, representing a substantial portion of the common stock equity of companies with nuclear units. While the focus of this case is on investment in a nuclear plant, the principles at stake apply with equal force to power plants using other fuels or any other investments by electric utilities, and to the investment of other kinds of investor-owned utilities subject to ratemaking.

This appeal represents a critical juncture both for the nation's investor-owned electric utilities and for the constitutional rules fashioned by this Court. For the Fourteenth Amendment to have meaning and continuing validity as a check on state ratemaking authority, the Court must remind state regulators that the investor interest articulated by this Court in *Hope* is more than a hollow phrase.

As the national association of investor-owned electric utilities, EEI is in a position to broadly reflect the impact of the issues raised in this appeal. The attached brief *amicus curiae* addresses the constitutional issues arising in the instant case from the perspective of the many companies throughout the nation that have committed substantial investment in new generating facilities pursuant to state-mandated obligations to serve. This viewpoint should contribute to this Court's understanding of

the issues and the broad future implications of this case for the nation's electric utilities, ratepayers, and the investors who provide the capital necessary to maintain the reliability and effectiveness of the nation's electric utility systems.

CONCLUSION

For the reasons set forth above and in the attached brief, EEI urges this Court to grant its motion for leave to file the attached brief as *amicus curiae.*

Respectfully submitted,

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May 1987

QUESTIONS PRESENTED

Edison Electric Institute adopts the questions presented set forth in the briefs of appellants Kansas Gas and Electric Company and Kansas City Power & Light Company.

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CASES: Page

Bluefield Waterworks & Improvements Co. v. Public Service Commission, 262 U.S. 679 (1923) 7
Federal Power Commission v. Hope Natural Gas Co., 320 U.S. 591 (1944) ..... *passim*
Federal Power Commission v. Natural Gas Pipeline Co., 315 U.S. 575 (1942) ..... *passim*
Federal Power Commission v. Sierra Pacific Power Co., 350 U.S. 348 (1956) 11
Jersey Central Power & Light Co. v. Federal Energy Regulatory Commission, 810 F.2d 1168 (D.C. Cir. 1987) ..... *passim*
Louisiana Public Service Commission v. Federal Communications Commission, —— U.S. ——, 106 S.Ct. 1890 (1986) 16, 21
Mississippi ex rel. Pittman v. Mississippi Public Service Commission, No. 56,762 (Miss. Feb. 25, 1987) 21
Missouri ex rel. Southwestern Bell Telephone Co. v. Public Service Commission, 262 U.S. 276 (1923) ..... *passim*
Pacific Gas & Electric Co. v. City of San Francisco, 265 U.S. 403 (1924) 14
In re Permian Basin Area Rate Cases, 390 U.S. 747 (1968) 7, 8, 13
Railroad Commission Cases, 116 U.S. 307 (1886) .. 6
Reagan v. Farmers' Loan & Trust Co., 154 U.S. 362 (1894) 7
Smyth v. Ames, 169 U.S. 466 (1898) 14
Southwestern Bell Telephone Co. v. State Corporation Commission, 192 Kan. 39, 386 P.2d 515 (Kan. 1963) 4, 12
United Gas Pipe Line Co. v. Mobile Gas Service Corp., 350 U.S. 332 (1956) 11
Washington Gas Light Co. v. Baker, 188 F.2d 11 (D.C. Cir. 1950), *cert. denied*, 340 U.S. 952 (1951) 11

TABLE OF AUTHORITIES—Continued

ADMINISTRATIVE DECISION: Page

Pennsylvania Public Commission v. West Penn Power Co., Docket No. R-850220, Opinion and Order upon Reconsideration (Pa. P.U.C. Apr. 17, 1987) 21

CONSTITUTION:

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U.S. Const. amend. XIV 6

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Atomic Energy Act, 42 U.S.C. §§ 2131-34, 2235 (1982) 17
Powerplant and Industrial Fuel Use Act, 42 U.S.C. § 8311 (1982) 17
16 U.S.C. § 824a(g) (1982) 17
Kan. Stat. Ann. § 66-101b (1985) 18

MISCELLANEOUS:

J. Bonbright, *Principles of Public Utility Rates* (1961) 9, 17
2 J. Bonbright, *Valuation of Property* (1937) 14
2 A. Kahn, *The Economics of Regulation* (1971) .. 19
Kahn, *Who Should Pay for Power-plant Duds?*, Wall St. J. (Aug. 15, 1985) 17
J. Kalt, H. Lee & H. Leonard, *Re-establishing the Regulatory Bargain in the Electric Utility Industry* (Harvard University Energy & Environmental Policy Center 1987) 19, 20, 22, 23
Navarro, *Our Stake in the Electric Utility's Dilemma*, HARV. BUS. REV., May-June 1982 ..... 20, 23
Posner, *Natural Monopoly and Its Regulation*, 21 STAN. L. REV. 548 (1969) 18
1 A. Priest, *Principles of Public Utility Regulation* (1969) 10, 18, 19
2 A. Priest, *Principles of Public Utility Regulation* (1969) 15
Rose, *The Hope Case and Public Utility Valuation in the States*, 54 COL. L. REV. 199 (1954) 15

TABLE OF AUTHORITIES—Continued

Page

U.S. DEPARTMENT OF ENERGY, *Energy Security: A Report to the President of the United States* (1987) 3, 20, 22, 23

UTILITY DATA INSTITUTE, INC., *The Adequacy of U.S. Electricity Supply Through the Year 2000*, Mar. 1987, executive summary 23

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On Appeal from the Supreme Court of Kansas

BRIEF *AMICUS CURIAE* OF EDISON ELECTRIC INSTITUTE IN SUPPORT OF APPELLANTS

Edison Electric Institute (EEI) submits its brief *amicus curiae* in support of appellants Kansas Gas and Electric Company (KGE) and Kansas City Power & Light Company (KCPL).

INTEREST OF EDISON ELECTRIC INSTITUTE

EEI is the national association of investor-owned electric utility companies in the United States. Its members serve 96 percent of all customers of the investor-owned segment of the industry and 73 percent of the nation's electricity users. Appellants KGE and KCPL are both EEI members.

As discussed in the Argument, decisions of this Court have long required that federal and state regulatory agencies approve public utility rates at non-confiscatory levels and ensure a balance between investor and consumer interests in the ratemaking process. Notwithstanding these decisions, the Kansas Supreme Court (Kansas Court) has affirmed orders of the State Corporation Commission of Kansas (KCC) which disallowed (for current return purposes) approximately $1.2 billion of the appellants' investment in the Wolf Creek nuclear generating station which the KCC determined was not imprudent. As demonstrated in appellants' briefs, this staggering sum consists of more than three-fourths of appellants' prudent Wolf Creek investment.

While apparently believing the disallowance benefits consumers, the KCC was in fact being shortsighted. The commission orders undermine the very basis of our regulatory system, which is designed to encourage private investment in facilities devoted to serving the public interest. The deprivation of a return on investment which is not imprudent seriously erodes the system that in shorthand form has been described as the regulatory compact, *i.e.*, the economic and regulatory relationship among investors, utilities, regulatory commissions and consumers. Furthermore, disallowances of this sort will ultimately increase the cost of capital as investors demand greater returns in response to heightened risk. These costs of doing business will, in turn, be passed through to consumers over time in higher rates for electricity.

As detailed in EEI's Brief *Amicus Curiae* in Support of the Jurisdictional Statements, disallowances of prudent utility investments could deny investors a return of, or a return on, billions of dollars of investment in electric utilities, or both. On behalf of its members, EEI has a strong interest in seeing that regulators adhere to constitutional principles in their ratemaking decisions. Otherwise, commissions, in pursuit of the near-term objective of rate suppression, may impose similar unconstitutional disallowances upon nuclear plants not yet on line, power plants using other fuels, and other utility investments subject to ratemaking. The recent U.S. Department of Energy, Energy Security Report to the President concludes that significant investment must be made in additional power plant capacity before the turn of the century. Investors will be averse to making the capital investment necessary to build this needed capacity, however, unless this Court provides state commissions with an emphatic reminder of the constitutional limits on state ratemaking authority.

SUMMARY OF ARGUMENT

The United States is fortunate in having a highly efficient and reliable system of electric generation and supply. Investor-owned electric utilities, which own 77 percent of the installed capacity and produce 78 percent of the total electric utility generation in the country, have played a dominant role in development of this system. To fulfill their legally mandated duty to provide adequate and reliable electric service at just and reasonable rates, these utilities have been able and must continue to be able to attract capital at reasonable cost. Since the inception of state commission rate regulation in the early years of this century, utilities have been able to attract the capital necessary to build generation, transmission and other facilities. The requirements of the U.S. Constitution, as interpreted by this Court and, until recent years, respected by state regulatory commissions, have provided the assurance needed by investors that the util-

ity will be guaranteed the opportunity to earn "the reasonable cost of conducting the business." *Missouri ex rel. Southwestern Bell Telephone Co. v. Public Service Commission*, 262 U.S. 276, 291 (1923) (Brandeis, J., concurring).

However, since the 1970's many of the costs incurred in providing adequate and reliable electric service have escalated at an accelerating rate for reasons beyond the utilities' control. In an effort to suppress rate increases, some state regulatory commissions during the 1980's have strained to find grounds for disallowing costs incurred in providing the electric service. But commissions err where they disallow costs prudently incurred and depart from the constitutional constraints on utility ratemaking, thus jeopardizing the financial integrity of utilities and increasing the cost of capital due to the heightened risk of investment. In the long run, the increased cost of capital must be passed on to consumers of electricity.

More than forty years have passed since this Court described the investor interests that must be served by constitutionally valid rate orders. *Federal Power Commission v. Hope Natural Gas Co.*, 320 U.S. 591 (1944). Those interests must be reflected in rates set within a "zone of reasonableness." Commissions are not required by the Constitution to adopt any particular rate level, but a rate at the bottom of the zone must not be confiscatory. *Federal Power Commission v. Natural Gas Pipeline Co.*, 315 U.S. 575 (1942). This Court has required commissions under the *Hope* doctrine to balance investor and consumer interests and to ensure that the "end result" of rate orders is constitutionally permissible. The KCC has utterly failed to follow these requirements.

Twenty-four years ago the Kansas Supreme Court acknowledged the fundamental legal and regulatory principles which govern rate regulation. *Southwestern Bell Telephone Co. v. State Corporation Commission*, 192 Kan.

39, 386 P.2d 515 (1963). But as shown by its decision in this case, that court must be emphatically reminded of the required constitutional analysis. The court ignored the Kansas Corporation Commission's failure to assess the utilities' ability to attract capital at reasonable rates and maintain its financial integrity, given the actual return on investment allowed by the KCC orders. Under the teachings of this Court, it is not enough for the KCC to assess the asserted justifications for individual components of its rate orders while ignoring the basic constitutional issue of whether the end result of its orders reflects a reasonable balancing of investor and consumer interests that allows the utilities the opportunity to earn the reasonable cost of conducting their businesses.

If investors are to continue to finance utility investments at a reasonable cost of capital in the future, they require assurance that the utility will have a fair opportunity to earn a reasonable return on all funds prudently invested. Moreover, the end result of a rate order that allows a reasonable return on all prudent investment will be sufficient to satisfy the lower end of the zone of reasonableness and thus be constitutional. In this case, however, the KCC ignored sound legal and regulatory principles in disallowing a current return on more than three-fourths of the companies' prudent investment.

As shown by recent studies and government reports, extensive investment will be necessary in new and replacement generation and new transmission lines by the mid-1990's if electric utilities are to continue to fulfill their obligation to provide adequate and reliable electric service. Yet, if this investment is to be available at reasonable costs of capital, the historic economic and regulatory relationship among utilities, investors, regulators and consumers—referred to in more recent times as the regulatory compact—must be restored. This Court will go a long way toward restoring that relationship by emphatically reiterating the constitutional limitations on the

KCC's ratemaking authority and requiring the commission to conduct the necessary balancing of investor and consumer interests. Accordingly, this Court should instruct the Kansas Court to remand this case to the KCC for a determination of whether the rates meet the constitutional minimum of allowing the utilities to attract capital at reasonable costs and to maintain their financial integrity.

ARGUMENT

EEI fully endorses the questions presented and arguments in the briefs of appellants KGE and KCPL. These briefs demonstrate that the KCC decisions, affirmed by the Kansas Court, violated appellants' rights under the Fifth and Fourteenth Amendments to the U.S. Constitution and, as KGE shows, violated their equal protection rights. This brief will not repeat all of appellants' arguments. Rather, it will selectively focus upon arguments and policy considerations which we believe will assist the Court in its deliberations.

I. The Fourteenth Amendment Protection Against Confiscation and the *Hope* Balance of Investor and Consumer Interests Govern Commission Determinations of Rates.

A. This Court's decisions compel commissions to protect investor interests in setting rates at nonconfiscatory levels.

The principle of just compensation in rate regulation, first established in the *Railroad Commission Cases* and echoed in other decisions of this Court,[1] received recognition in the context of utility rate regulation in a line of cases extending from *Missouri ex rel. Southwestern Bell Telephone Co. v. Public Service Commission*, 262 U.S. 276

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[1] *See, e.g., Railroad Commission Cases*, 116 U.S. 307, 331 (1886); *Reagan v. Farmers' Loan & Trust Co.*, 154 U.S. 362, 399 (1894).

(1923),[2] to *Federal Power Commission v. Hope Natural Gas Co.*, 320 U.S. 591 (1944). The compensation required by the Constitution in utility rate cases was articulated in Justice Brandeis' seminal concurring opinion in *Southwestern Bell* as follows:

> *The compensation which the Constitution guarantees an opportunity to earn is the reasonable cost of conducting the business. Cost includes not only operating expenses, but also capital charges.* Capital charges cover the allowance, by way of interest, for the use of the capital, whatever the nature of the security issued therefor; the allowance for risk incurred; and enough more to attract capital. The reasonable rate to be prescribed by a commission may allow an efficiently managed utility much more. But *a rate is constitutionally compensatory, if it allows to the utility the opportunity to earn the cost of the service as thus defined.*

Id. at 291 (emphasis added).

This formulation of the constitutional standard of just compensation in utility rate regulation has been followed by the Court through the years. *Federal Power Commission v. Natural Gas Pipeline Co.*, 315 U.S. 575 (1942), involved the requirement that the Commission set "just and reasonable rates" under the Natural Gas Act. The constitutional standard was important to reviewing cases governed by the Act because under the Act "the 'lowest reasonable rate' is one which is not confiscatory in the constitutional sense." *Id.* at 585. Thus, the Court found the Act's "just and reasonable" standard to "coincide" with that of the Constitution. *Id.* at 586. *Accord, In re Permian Basin Area Rate Cases*, 390 U.S. 747, 770 (1968).

In *Federal Power Commission v. Hope Natural Gas Co.*, 320 U.S. 591 (1944), the Court was faced with the

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[2] *See also Bluefield Waterworks & Improvements Co. v. Public Service Commission*, 262 U.S. 679, 690 (1923).

same coincidence of the congressional standard and constitutional standard for just compensation, *i.e.*, whether rates set under the Natural Gas Act fell below the "lowest reasonable rate" allowed by the statutory standard of "just and reasonable rates." The Court set forth the investor interests that must be served by constitutionally valid rate orders as follows:

> [T]he investor interest has a legitimate concern with the financial integrity of the company whose rates are being regulated. From the investor or company point of view it is *important that there be enough revenue not only for operating expenses but also for the capital costs of doing business.* These include service on the debt and dividends on the stock. . . . By that standard the return to the equity owner should be commensurate with returns on investments in other enterprises having corresponding risks. That return, moreover, should be sufficient to assure confidence in the financial integrity of the enterprise, so as to maintain its credit and to attract capital. *See State of Missouri ex rel. Southwestern Bell Tel. Co. v. Public Service Commission*, 262 U.S. 276, 291 . . . (Mr. Justice Brandeis concurring).

Id. at 603 (emphasis added). *Accord*, *Permian Basin*, 390 U.S. at 792 ("the court must determine whether the order may reasonably be expected to maintain financial integrity, attract necessary capital, and fairly compensate investors for the risks they have assumed. . . .").[3]

Moreover, a company need not be on the verge of bankruptcy before investor interests are constitutionally protected:

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[3] In *Jersey Central Power & Light Co. v. Federal Energy Regulatory Commission*, 810 F.2d 1168 (1987), Judge Bork turned to the same formulations of the capital attraction standard and explained: "[The company] needed to record *earnings* in order to lay a foundation for the issuance of securities and regain access to the capital markets." *Id.* at 1187 (emphasis in original).

> *Hope Natural Gas* talks not of an interest in avoiding bankruptcy, but an interest in maintaining access to capital markets, the ability to pay dividends, and general financial integrity. While companies about to go bankrupt would certainly see such interests threatened, companies less imminently imperiled will sometimes be able to make that claim as well. . . . The contention that no company that is not clearly headed for bankruptcy has a judicially enforceable right to have its financial status considered when its rates are determined must be rejected.

Jersey Central Power & Light Co. v. Federal Energy Regulatory Commission, 810 F.2d 1168, 1180 (1987).

Authoritative commentators on utility rate regulation agree that capital attraction is the primary criterion governing the determination of a fair rate of return. Professor James Bonbright reasoned:

> Recalling, then, that we are concerned with the *principles* by which to measure a fair return rather than with details of application to any one case, what criteria of fairness or effectiveness should govern the choice of these principles? Among these criteria, *high place, perhaps first place, must be given to that of capital-attracting efficiency.* Judged by this test alone, choice should rest with whatever principles of rate control are best designed to permit well-managed, soundly financed public utility companies to attract needed capital.

J. Bonbright, *Principles of Public Utility Rates* 152 (1961) (footnote omitted, first emphasis in original and second emphasis added), *citing Hope*, 320 U.S. at 605. In the same vein, Professor A.J.G. Priest wrote:

> *If any one criterion is to be particularly emphasized [in determining rate of return], attraction of capital should get the nod. . . .*
>
> * * * *
>
> If the "reasonable terms" on which capital is attracted permit common stock to be issued in appro-

> priate amounts and under conditions which work no dilution in the per-share earnings of existing stockholders, the enterprise will have raised the "money necessary for the proper discharge of its public duties."

1 A. Priest, *Principles of Public Utility Regulation* 199 (1969) (footnote omitted and emphasis added).

B. In meeting the "end result" test, commissions must calculate reasonable rates which, after balancing investor and consumer interests, fall within a "zone of reasonableness."

A commission must ensure that the total impact of its rate order, however arrived at, does not have unjust or unreasonable consequences resulting in confiscation.

> Under the statutory standard of "just and reasonable" it is the result reached not the method employed which is controlling. . . . It is not theory but the impact of the rate order which counts. If the total effect of the rate order cannot be said to be unjust and unreasonable, judicial inquiry under the Act is at an end. The fact that the method employed to reach that result may contain infirmities is not then important.

Hope, 320 U.S. at 602 (citations omitted); *see also Natural Gas Pipeline*, 315 U.S. at 586.

In meeting the "end result" test, the commission must also review those rates to see if they fall within a "zone of reasonableness." "[T]here is a zone of reasonableness within which the Commission is free to fix a rate varying in amount and higher than a confiscatory rate. . . ." *Natural Gas Pipeline*, 315 U.S. at 585 (citations omitted). In addition, this Court has recognized that the ratemaking process involves a balancing of investor and consumer interests. *Hope*, 320 U.S. at 603. This balancing process can result in movement of rates up or down within the zone of reasonableness, bounded at the low

end by investor interests against confiscation and at the high end by consumer interests against exploitative rates. *Washington Gas Light Co. v. Baker*, 188 F.2d 11, 15 (D.C. Cir. 1950), *cert. denied*, 340 U.S. 952 (1951).

Thus, consumer interests may cause commissions to lower rates, investor interests may cause them to raise rates, and public interests may compel them to either lower or raise rates. *See United Gas Pipe Line Co. v. Mobile Gas Service Corp.*, 350 U.S. 332, 345 (1956); *Federal Power Commission v. Sierra Pacific Power Co.*, 350 U.S. 348, 355 (1956). Since courts do not have ratemaking expertise as commissions do, they will not second guess the methodologies used in the balancing of interests so long as the end result of the ratemaking process is not confiscatory.

That is, the cases interpreting the Constitution require that the lowest permissible rate must fall within the zone of reasonableness—and must provide the constitutionally required return—because "the 'lowest reasonable rate' is one which is not confiscatory in the constitutional sense." *Natural Gas Pipeline*, 315 U.S. at 585. Under the *Hope* doctrine, commissions must set a rate within a zone of reasonableness, but the bottom of that range, or the lowest possible rate, is one that allows the company an "opportunity to earn . . . the reasonable cost of conducting the business." *Southwestern Bell*, 262 U.S. at 291. A rate established below that level is confiscatory.

C. The Kansas Court failed to apply the appropriate constitutional standards and reverse the Kansas commission's orders.

Twenty-four years ago the Kansas Court endorsed the fundamental legal and regulatory principles (discussed above) which govern rate regulation:

> It would appear that if a utility is allowed a rate of return which will attract capital on reasonable terms, its financial integrity is fairly well assured.

> At least the two standards are closely related. The same facts and principles that establish one will tend to establish the other.

Southwestern Bell Telephone Co. v. State Corporation Commission, 192 Kan. 39, 76, 386 P.2d 515, 547 (1963). Had the Kansas Court applied the appropriate constitutional standards in this case, it would have been compelled to reverse the KCC's orders.

The Kansas Court's two-paragraph application of the legal standards (Appellants' Appendix A-45a-46a) was not only faint, but failed to undertake the necessary constitutional analysis. Nowhere did the Kansas Court discuss the financial status of the appellants. Nowhere did that court discuss the ability of the companies to attract capital or to maintain their financial integrity, given the actual return on investment allowed by the KCC orders. And nowhere did the court properly discuss whether the end result of the KCC's orders was constitutionally permissible.

In addition to the Kansas Court's failure to undertake the constitutional analysis, the KCC's application of the legal standards failed to follow the constitutional test. For example, the KCC did not avoid the infirmity described by Judge Bork in *Jersey Central*: the fact that a particular ratemaking standard may be generally permissible [4] does not *per se* legitimate the end result of the rate orders it produces. 810 F.2d at 1180. In other words, the component decisions of the rate orders aggregated together must not produce arbitrary or unreasonable consequences; the choices underlying the orders must not only be reasonable, but they must still add up

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[4] EEI agrees with appellants that the "economic valuation" methodology utilized by the KCC to deprive appellants of a current return on their investment in Wolf Creek is *not* legitimate and, furthermore, does not produce a reasonable result.

to a reasonable result. *Id.* at 1177, *citing Permian Basin*, 390 U.S. at 800; 1178.

What the KCC did was assess the alleged justifications for individual components of its rate orders while wholly avoiding the fundamental issue of whether the end result of its orders fell below the minimum level mandated by the Constitution. The KCC addressed at length the purported reasonableness of adjustments to rate base pertaining to Wolf Creek and rate of return (A-99c-110c; 133c-136c; 98f-110f; 132f-138f), but it did not address whether the return allowed by its rate orders would affect the abilities of the companies to attract capital or maintain their financial integrity, and it did not assess the financial impact of its rates on the companies. The KCC stated that the result of its orders would be "just and reasonable" (A-16d, 17g), but this bland assertion falls far short of the necessary constitutional analysis and the requirements of the *Hope* doctrine. The KCC simply did not discuss whether the end result of its orders would be constitutionally permissible.

D. A fair return on prudent investment satisfies the constitutional test and the investor component of the *Hope* balance of interests.

The KCC's orders initially disallowed 10 percent of the appellants' investment in Wolf Creek on the basis of imprudence in construction expenditures. KGE and KCPL are not contesting that disallowance before this Court.[5] However, the KCC's further decisions to disallow a current return on more than three-fourths of the companies' prudent investment in the plant are at the core of appellants' constitutional challenges. This Court

[5] This case does not involve the determination of the prudence of utility investment, but rather the exclusion of investment from rate base based on a hindsight evaluation of the results of the utility's planning decisions determined by the KCC not to be imprudent.

should strike down the KCC's decisions as a matter of law.

In his classic concurrence in *Missouri ex rel. Southwestern Bell Telephone Co. v. Public Service Commission*, 262 U.S. 276, 289-90 (1923), Justice Brandeis stated that the U.S. Constitution guarantees to the investors in a regulated utility the opportunty of earning a fair return on all capital that was prudently invested in it. He dismissed the "fair value" rule of *Smyth v. Ames*, 169 U.S. 466 (1898), as being legally and economically unsound, advocating in its place the prudent investment standard.

This prudent investment standard was based on a focus on the investors' "property," *i.e.*, their capital:

> The thing devoted by the investor to the public use is not specific property, tangible and intangible, but capital embarked in the enterprise. Upon the *capital so invested* the Federal *Constitution guarantees to the utility the opportunity to earn a fair return.* Thus, it sets the limit to the power of the State to regulate rates. The Constitution does not guarantee to the utility the opportunity to earn a return on the value of all items of property used by the utility, or of any of them.

Id. at 290 (footnote omitted and emphasis added). *See also Pacific Gas & Electric Co. v. City of San Francisco*, 265 U.S. 403, 425 (1924) (Brandeis, J., dissenting). Justice Brandeis defined "prudent investment" to include in rate base "investments which, under ordinary circumstances, would be deemed reasonable." *Southwestern Bell*, 262 U.S. at 289 n.1. Prudent investment excludes "dishonest or obviously wasteful or imprudent expenditures." *Id.* "Every investment may be assumed to have been made in the exercise of reasonable judgment, unless the contrary is shown." *Id.*[6]

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[6] For a more detailed explanation of the prudent-investment standard, see 2 J. Bonbright, *Valuation of Property* 1084-86 (1937).

The theory of prudent investment in rate base was cited with approval by three concurring justices in *Federal Power Commission v. Natural Gas Pipeline Co.*, 315 U.S. 575, 606 (1942) (Black, J., concurring). In *Hope* the Court accepted Justice Brandeis' analysis that the focus must be on the returns on investment. 320 U.S. at 603, *citing Southwestern Bell* (investor interest described as an interest in return on investment); 606 ("integrity of [utility's] investment maintained"). *See also Jersey Central*, 810 F.2d at 1181; 2 Priest, *supra*, at 497, 504. Thus, the prudent investment standard first advocated by Justice Brandeis has been acknowledged as a permissible ratemaking methodology by this Court and by a majority of the state regulatory commissions.[7] In short, the constitutional test requires an examination of and solicitude for the company's financial integrity. An examination of financial integrity in turn requires a focus on the investors' capital investment. In any particular rate case, a commission may compute the cost of service, rate base, return on rate base and, finally, rates using legitimate methodologies. In the process of determining rates, however, the constitutional ratemaking doctrine requires the commission to determine the rates' financial effects on investors and the integrity of the company. To make this determination, the agency should calculate the returns to investors on *all* the capital that was prudently invested in the utility's business.

We urge the Court to remind commissions of their obligation to make this determination in order to assess properly the effect of rates on the financial integrity of the utility. Once determined, a fair return on prudent investment will satisfy the lower end of the zone of reasonableness for the establishment of constitutional rates.

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[7] For the state commissions, see generally Rose, *The Hope Case and Public Utility Valuation in the States*," 54 COL. L. REV. 199, 212 (1954). The prudent investment standard has replaced the fair value rule in most jurisdictions.

Placing prudent investment in rate base and allowing a company's investors to earn a fair return on the original cost of the investment are a correct path for ratemaking commissions to follow. *Jersey Central*, 810 F.2d at 1181. This view is consistent with this Court's recent general discussion of the ratemaking process. *Louisiana Public Service Commission v. Federal Communications Commission*, —— U.S. ——, 106 S.Ct. 1890, 1896 (1986). In stark contrast, the KCC in this case disallowed current return on more than three-quarters of the companies' investment found by it not to be imprudent.

If a commission does not consider the need for a fair return to investors on all the capital that was prudently invested in a company, its rate determination will fail to reflect the actual effects on investors. Commissions generally seek to set allowed rates of return equal to the market cost of capital, *i.e.*, the rate of return needed to attract new capital to the company. If such a rate of return is applied to a rate base which includes less than the utility's entire prudent investment, the company will by definition earn a return *less* than the market cost of capital and will be *unable* to attract new capital on the terms found reasonable and necessary to maintain its financial integrity. This is particularly true since the utility will not be allowed to earn an unusually high rate of return on "successful investments," or to include an amount greater than its prudent investment in rate base.[8]

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[8] Dr. Alfred Kahn explained the economic principles in this fashion:

> [I]f the company makes a particularly successful investment—and there have been many such—the lion's share of the benefit goes to the consumer. . . .
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> The other side of the bargain is, and has to be, that investors are permitted to earn that same minimum return also on the dollars that they put into investments that turn out sour. If they can earn the cost of capital only on the successes and not on the failures, it follows that they will earn less than the cost of capital on all their dollars, taken together. And investors

Furthermore, " '[p]rudent' imports the requirement that the investment, in order to gain recognition in the rate base, must have been prudently incurred in the light of foresight rather than of hindsight." Bonbright, *supra*, at 174 n.2, *citing Southwestern Bell*, 262 U.S. 276 (Brandeis, J., concurring). That is, the prudency of the investment must be evaluated as of the time of the investment, not with 20/20 second-guessing years later.

> That does not mean consumers have to bear the cost of grossly imprudent ventures; that is the justification for public utility commissions determining the prudency of utility investments. No investors can legitimately expect that. But *the only test of prudence consistent with the regulatory bargain has to be made as of the time the commitments were made.*

Kahn, *supra* (emphasis added).

Here the KCC second-guessed appellants' economic decision to build a nuclear plant instead of a coal plant or some other plant. This hindsight evaluation was imposed despite the fact that the decision to go nuclear was in accordance with national energy policies,[9] that the KCC had continually overseen the building of Wolf Creek with concurrent management prudence reviews, and that the KCC determined that the decision to build a nuclear plant was not imprudent (A-47a). In sum, the second-guessing by the KCC into the realms of alleged excess "physical" capacity and alleged excess "economic" capacity violated sound legal and regulatory principles by fail-

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won't play that game once they understand that those are going to be the rules.

Kahn, *Who Should Pay for Power-plant Duds?*, Wall St. J., Aug. 15, 1985, at 26, col. 3.

[9] *See, e.g.*, Atomic Energy Act, 42 U.S.C. §§ 2131-34, 2235 (1982); Powerplant and Industrial Fuel Use Act, 42 U.S.C. § 8311 (1982); 16 U.S.C. § 824a(g) (1982).

ing to account for the investor component of the *Hope* balance of interests.

II. Reaffirmation of the Constitutional Requirements Will Restore the Proper Relationship Among Utilities, Investors, Regulators and Consumers and Provide a Firm Foundation for the Continued Provision of Adequate and Reliable Electric Power to the Nation.

The historic relationship among utilities, investors, regulators and consumers in the provision of electric utility service in Kansas and other states throughout the nation has been characterized in more recent times as a regulatory compact. The elements of this compact, referred to at times as the regulatory bargain, are frequently embodied in state statutes. Under the compact, reciprocal obligations and benefits run to and between utility investors and companies on the one hand, and consumers of utility service on the other, with the regulatory body serving as an arbitrator balancing different elements of the public interest at stake. Utility companies, with capital supplied by investors, assume a service obligation. This obligation requires regulated utilities to furnish safe and reliable electric service to everyone desiring service, to provide service at just and reasonable rates approved by independent regulatory agencies, and to anticipate growth in demand for service and take reasonable steps in advance to meet that demand.[10]

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[10] Like most statutes providing for utility rate regulation, the Kansas Public Utilities Act has long required that electric utilities operating in Kansas furnish reliable and adequate service to existing and future customers and construct facilities for that purpose. Kan. Stat. Ann. § 66-101b (1985) (A-1j through A-2j). Despite recent amendments directed at the Wolf Creek unit, the Kansas statute still reflects in large part the implicit bargain between utility investors and consumers that underlies utility rate regulation. Public utility laws of most states impose similar obligations on utilities. 1 Priest, *supra*, at 227, 230-31. *See also* Posner, *Natural Monopoly and Its Regulation*, 21 STAN. L. REV. 548, 607 (1969).

In exchange for assuming the duty to serve, investor-owned utilities generally receive a right to serve consumers within a specified geographic area. 2 A. Kahn, *The Economics of Regulation* 8 (1971). They operate as franchised monopolies, foregoing rates of return that could be obtained in the unregulated marketplace in return for the reasonable expectation that they will be allowed to earn a fair rate of return on investment and be provided some measure of protection from detrimental consequences if prudent utility investments prove unsuccessful. 1 Priest, *supra*, at 377. Until recently, the compact has operated to assure that utilities have the financial means necessary to continue to discharge the duty to serve.

Professor Alfred Kahn, a leading regulatory economist and former chairman of the New York Public Service Commission and the Civil Aeronautics Board, summarized the give and take of the regulatory bargain:

> Stockholders, protected by franchise against competition, accept the strict legal obligation to provide service to all who seek it, on just and reasonable terms. This means that they accept only reasonable profits—along with a duty conscientiously to anticipate the future needs of the public and to make whatever investments. . . . that they conscientiously judge to be necessary—in order to be in a position to meet the needs when, and if, they arise. *The government acting on behalf of consumers agrees to permit the companies to set rates sufficient to cover all costs prudently incurred in fulfilling their service obligation.*

Kahn, Prepared Direct Testimony, ACC Docket No. U1345-85-156, at 3 (Ariz. C.C. Dec. 1985) *reprinted in* J. Kalt, H. Lee, & H. Leonard, *Re-establishing the Regulatory Bargain in the Electric Utility Industry* 50 (Harvard University Energy & Environmental Policy Center

1987) (emphasis added).[11] More recently, Judge Starr offered the following description of the regulatory compact in his concurring opinion in *Jersey Central*, 810 F.2d at 1189 (citation omitted):

> The utility business represents a compact of sorts; a monopoly on service in a particular geographic area (coupled with state-conferred rights of eminent domain or condemnation) is granted to the utility in exchange for a regime of intensive regulation, including price regulation, quite alien to the free market. . . . Each party to the compact gets something in the bargain. As a general rule, utility investors are provided a level of stability in earnings and value less likely to be attained in the unregulated or moderately regulated sector; in turn, ratepayers are afforded universal, non-discriminatory service and protection from monopolistic profits through political control over an economic enterprise.

Regulatory decisions of the 1980's have badly eroded the regulatory compact. This erosion has been well documented.[12] While utilities have been and continue to be obligated to provide service to all who presently seek it and to anticipate and provide for future demand, the reciprocal element of the regulatory bargain which requires a fair return on prudent investment has been abrogated by many state commissions. Since the beginning of 1983, billions of dollars of prudent investment in operating generating capacity, most of it large nuclear

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[11] Hereinafter referred to as *Harvard Study*. A copy of this study has been lodged with the Clerk of the Court.

[12] Numerous studies and articles have detailed the breakdown of the regulatory compact and discussed the negative economic consequences of such a development on a national scale. *See, e.g.*, U.S. DEPARTMENT OF ENERGY, *Energy Security: A Report to the President of the United States* 130-31, 154-55 (1987) [hereinafter *DOE Report*; a copy of this report has been lodged with the Clerk of the Court]; *Harvard Study*; Navarro, *Our Stake in the Electric Utility's Dilemma*, HARV. BUS. REV., May-June 1982, at 87.

generating units like Wolf Creek, have been excluded from utility rate base, thereby depriving investors of an opportunity to earn a fair return.[13] In short, the breakdown of the regulatory bargain is a troubling national phenomenon.[14] *See, e.g., Jersey Central*, 810 F.2d at 1170-71. It is clearly illustrated in this case by events in Kansas. *See* KCPL Jurisdictional Statement at 3-8; KGE Jurisdictional Statement at 3-6; EEI's Brief *Amicus*

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[13] For a discussion of the extent of investors' losses, see EEI Brief *Amicus Curiae* in Support of Jurisdictional Statements at 12-15 & Appendix. Disallowance from rate base has a significant impact on investors under traditional ratemaking methodologies. Generally, "a regulated [utility] is entitled to recover its reasonable expenses and a fair return on its investment through the rates it charges customers. . . . The total amount that a [utility] is entitled to charge for services, its 'revenue requirement,' is the sum of its current operating expenses, including taxes and depreciation expenses, and a return on its investment 'rate base.'" *Louisiana Public Service*, 106 S.Ct. at 1896 (citations omitted). Through this ratemaking arrangement investors earn a return on investment only when the property in which their funds have been invested is included in the utility's rate base.

[14] Developments since the filing of EEI's Brief *Amicus Curiae* in Support of the Jurisdictional Statements offer no indication that the trend of ratemaking disallowances will abate. Other states stand poised to attempt steps similar to those taken in Kansas. For example, the Mississippi Supreme Court, saying that Mississippi ratepayers neither want nor need capacity from a new nuclear plant, has reversed a 1985 Mississippi Public Service Commission order which had granted a utility a rate increase to cover its share of the costs of the new Grand Gulf nuclear plant and directed the commission to determine whether the plant should be included in rate base. *Mississippi ex rel. Pittman v. Mississippi Public Service Commission*, No. 56,762 (Miss. Feb. 25, 1987). The Pennsylvania Public Utility Commission acted in a similar fashion recently when it voted to reconsider its decision allowing recovery of the cost of purchased power from a pumped storage unit, citing as authority the 1986 enactment of an excess capacity statute. *Pennsylvania Public Utility Commission v. West Penn Power Co.*, Docket No. R-850220, Opinion and Order upon Reconsideration (Pa. P.U.C. Apr. 17, 1987).

Curiae in Support of Jurisdictional Statements at 3-6, 15-19.

In a sense the regulatory compact has been transformed into a "heads we may break even, tails we lose" situation for investors. *DOE Report* at 155; *Harvard Study* at 57-58. The economic symmetry between risks and rewards implicit in the regulatory compact has been disregarded. Rewards earned by utility investors on successful projects remain limited, consistent with the traditional compact, as investors still are denied an opportunity to earn an unfettered, market-justified profit on the utility's successes. But the historical limitation on the downside risk of utility investment has been stripped away.

The consequent disallowances of investment in facilities deemed after the fact to be unneeded or unduly costly, which in turn preclude the utility from recovering revenues sufficient to earn its cost of capital, produce a confiscation of investors' funds. Moreover, the unfair asymmetry inherent in a regulatory system which produces virtually limitless investor risk but provides investors only with an opportunity to earn a limited return on their investment is a prescription for economic disaster. It is an unavoidable fact that utilities must obtain large amounts of capital to provide service today and into the future. Regulatory actions like those in Kansas invariably will mean that utilities, and ultimately their customers, will bear higher finance costs in order to attract necessary capital, or be denied investors' capital altogether.

Without significant additions to current generating capacity, both new capacity and replacements for existing capacity that is near the end of its useful life, a substantial likelihood exists that in some parts of the nation the electricity supply will be inadequate to meet demand by the mid-1990's. Based upon current projections of future electricity demand and the expected retire-

ments of aging power plants, the recent U.S. Department of Energy, Energy Security Report to the President has conservatively estimated that 100 gigawatts of new electric generating capacity will be needed by the year 2000. *DOE Report* at 136-41.[15] Another forecast cites the need for 150 gigawatts—roughly equal to 150 new coal or nuclear power plants. Navarro, *supra* n.12, at 88.

The current regulatory environment offers no assurance that these future requirements will be economically and adequately met. On the contrary, the current environment virtually requires utility managers to adopt a strategy of capital minimization. Rather than invest the sums necessary for large, capital intensive baseload generating plants, and expose investors to the risks of hindsight-based disallowances when those projects are completed, managers are opting for less capital intensive technology. *DOE Report* at 130, 154-55; *Harvard Study* at 60-61; Navarro, *supra* n.12, at 90-91, 93, 97. The logical consequence of this strategy is increased dependence on capacity which uses scarce and depletable oil and gas for generation. Utility management also will be reluctant to commit to build optimally-sized baseload facilities when less capital intensive, but less efficient, facilities will do. Neither of these trends bodes well for the nation.

Restoration of the fundamental relationships embodied in the regulatory compact is essential to the efficient and timely development of the nation's energy options. By reaffirming the constitutional limits on state ratemaking authority, this Court will require regulators to consider the investors' interests in the financial integrity of the utility, to make findings concerning those interests, and to protect those interests. This protection of investors will necessarily constrain regulators' ability to deny in-

[15] *See also* UTILITY DATA INSTITUTE, INC., *The Adequacy of U.S. Electricity Supply Through the Year 2000*, Mar. 1987, executive summary [hereinafter *UDI Study*]. A copy of the executive summary has been lodged with the Clerk of the Court.

vestors a fair return on a utility's prudent investment. Revitalization of constitutional ratemaking principles will compel regulators to make financially responsible rate decisions now so that utilities are able to attract the capital needed to carry out vital plant construction and continue to satisfy their service obligations.

CONCLUSION

For the foregoing reasons, *amici curiae* Edison Electric Institute respectfully urges the Court to reverse the decision of the Kansas Supreme Court and remand with instructions that the Kansas Court, in turn, remand the case to the Kansas Corporation Commission for the establishment of constitutional rates.

Respectfully submitted,

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Supreme Court of the United States

OCTOBER TERM, 1986

KANSAS GAS AND ELECTRIC COMPANY,
Appellant,

V.

STATE CORPORATION COMMISSION
OF THE STATE OF KANSAS,
Appellee.

KANSAS CITY POWER & LIGHT COMPANY,
Appellant,

V.

STATE CORPORATION COMMISSION
OF THE STATE OF KANSAS,
Appellee.

On Appeal from the Supreme Court of Kansas

BRIEF OF AMICUS CURIAE, THE LEGAL FOUNDATION OF AMERICA, URGING REVERSAL

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NO. 86-781
NO. 86-793

IN THE
SUPREME COURT OF THE UNITED STATES
OCTOBER TERM, 1986

KANSAS GAS AND ELECTRIC COMPANY,
Appellant,

V.

STATE CORPORATION COMMISSION
OF THE STATE OF KANSAS,
Appellee.

KANSAS CITY POWER & LIGHT COMPANY,
Appellant,

V.

STATE CORPORATION COMMISSION
OF THE STATE OF KANSAS,
Appellee.

BRIEF OF AMICUS CURIAE, THE LEGAL FOUNDATION OF AMERICA, URGING REVERSAL

INTEREST OF AMICUS CURIAE

The Legal Foundation of America ("LFA") is a nonprofit corporation supporting the operations of a public interest law firm. Its goals include enhancement of the market system of resource allocation, the attainment of a better balance between the federal government and the states, and the preservation of a rational system of criminal justice. In support of these goals, the attorneys representing LFA have appeared as amicus curiae in the United States Supreme Court, in the federal courts of

appeals, in the federal district courts, and in the courts of various states. All litigation undertaken by LFA is approved by its Board of Directors, the majority of whom are attorneys.

LFA has particular expertise in the presentation of economic concepts and issues of regulatory policy to courts. One of LFA's attorneys has served as an expert witness in federal court to explain the energy market.

In the case at bar, LFA wishes to present to the Court a single issue that is at the heart of the case: whether a regulated public utility should recoup investment that a regulatory body later deems excessive, or whether stockholders should share losses attributable to such investment.

SUMMARY OF ARGUMENT

Lurking behind many of the arguments in this case is the following contention: that since in this case the utility made investment in a nuclear facility which in hindsight the Kansas Corporation Commission ("KCC") considered excessive, the cost of the "excess" investment should be borne by the utilities and their stockholders. Since the utilities are in business, and since ordinary, non-regulated business entities do not recoup excessively costly investments, these utilities should not either—so the argument goes.

This argument, though superficially appealing, is erroneous. It fails to take into account differences between unregulated private enterprises and regulated public utilities. Economists are in general agreement that a regulated public utility cannot at one and the same time be confined to regulated profit on successful activities and be required to sustain the loss of unproductive ones, without impairment of fiscal integrity. Since the *Hope* test requires inquiry into "the financial integrity of the company whose rates are being regulated," *FPC v. Hope Natural Gas Co.*, 320 U.S. 591 (1944), this economic analysis is essential to the decision of this case.

For reasons given below, the costs attributable to regulated investment can only be reviewed rationally in the context of original costs. This concept does not mean that a utility recovers any expenditure, no matter how imprudent; if a particular investment, at the time it is incurred, is so culpably imprudent that it cannot be characterized as part of long run average costs, then it should not be part of the rate base. This test of culpable imprudence should be the determinant of inclusion of non-productive investment in the rate base, rather than the concept of placing costs on utility investors by hindsight. If these concepts accurately are applied to the present case, it becomes clear that the decisions below effect an unconstitutional taking.

ARGUMENT

I. THE *HOPE* TEST REQUIRES INQUIRY INTO "THE FINANCIAL INTEGRITY OF THE COMPANY WHOSE RATES ARE BEING REGULATED." THE ECONOMIC ANALYSIS IN THIS BRIEF IS A NECESSARY COMPONENT OF THAT INQUIRY.

In *Federal Power Commission v. Hope Natural Gas Co.*, 320 U.S. 591, 603 (1944), the Court mandated inquiry into the "financial integrity of the company whose rates are being regulated." A rate order is "unjust and unreasonable in its consequences" if it does not allow a sufficient return "to assure confidence in the financial integrity of the enterprise, so as to maintain its credit and attract capital." *Id.* at 602. *See also In re Permian Basin Area Rate Cases*, 390 U.S. 747, 770 (1968).

This inquiry necessarily includes the kind of analysis done in this brief of amicus curiae. In passing, amicus would add that a rate providing a return of less than one percent to common shareholders, see Jurisdictional Statement of Kansas Gas & Electric Co. at 12, is highly unlikely on its face to be justified. However, the analysis contained here is concerned with the consequences of that rate, which *Hope* and *Permian* indicate are the most important concern.

II. COSTS OF INVESTMENT SHOULD NOT BE BORNE BY UTILITY INVESTORS MERELY BECAUSE THEY ARE DEEMED "EXCESSIVE" IN HINDSIGHT. SUCH AN APPROACH WOULD IGNORE THE ABSENCE OF GREATER-THAN-NORMAL PROFITS IN A REGULATED UTILITY AND WOULD IMPAIR THE FISCAL INTEGRITY OF THE UTILITY.

Prices in non-regulated, competitive industries are set by the market itself. Each single unit of production tends to be compensated proportionally to its capacity for actual service in the marketplace. However, economists are in general agreement that this concept cannot be applied to selected units of a public utility that is regulated on an original-cost basis. For example, the following is given by R. DORFMAN, PRICES AND MARKETS 153 (Harv. 3rd ed. 1978) (emphasis added):

> [If a regulated public utility] were to *charge a price . . . as a competitor does, [it] would be losing money.* No matter how economists may extol the virtues of . . . charging for each unit of a product the addition to costs attributable to it . . . , the [regulated public utility] cannot afford to follow that policy.

In other words, the net result of the argument that equity investors in a public utility should bear what a regulatory body later determines are "excess" costs *would be to cause all such utilities to lose money in the long run.* That fallacious reasoning is precisely what supports the conclusion of the Kansas Corporation Commission here. If it prices some units by disallowing "excess" costs, it could not ensure financial integrity without also allowing very high returns on other units; but that approach is fundamentally contrary to the concept of cost-based rate regulation.

The main reason for this difference between regulated public utilities and non-regulated competitive industries is explained by the following:

> The actual profit rate on a particular investment can diverge from the long-term normal rate for several reasons. In a particular year, errors in short-run planning or prediction may lead sellers to under- or over-estimate the demand for their products, and this in turn, may yield higher or lower prices or profits than expected. Such deviations in profits from the norm are called windfalls. . . . But positive and negative windfalls should about cancel out over the long pull. They should not distort long-run normal profits.

R. CAVES, AMERICAN INDUSTRY: STRUCTURE, CONDUCT, PERFORMANCE (Harv. 5th ed. 1982). This description fits the competitive, non-regulated enterprise. However, a regulated public utility cannot offset losses against "windfalls" occurring in "good" years, because its rate of return is regulated. As Kansas Gas & Electric Co. colorfully put it in its Jurisdictional Statement at 9, "[U]tility investors do not have the opportunity to earn the profits Ford earned on the Mustang because they do not risk the losses Ford incurred on the Edsel." Even if it invests astutely in a given "good" year or in a given plant, a utility is prohibited from receiving more than a regulated profit in that year or on that plant, and consequently, it cannot offset greater-than-normal profits against losses.

For this reason, regulatory agencies usually focus upon a utility's "original" costs. "A regulatory agency might . . . [interpret] costs to include a reasonable return on invested capital; and this is often done." R. DORFMAN, *supra*, at 152-53. Thus the test should be whether the item is properly includable in original costs. *Id.*

If a particular managerial decision, viewed as of the time it is made, is so culpably imprudent that no reasonable manager

would have made such a decision as of that time, the costs so incurred are not to be considered a part of long run average costs and should not be included in the rate base. However, this concept must be applied with caution. It must be understood that there is a range of decisions that can be made, and that the choice among those decisions is to be understood in light of information available at the time, not in the light of hindsight. If hindsight is used, the disadvantageous result described above will occur: all losses will be placed upon the investor, those losses cannot be offset against greater-than-usual profits, and the fiscal integrity of the utility will be impaired.

It is particularly difficult to judge management's energy forecasts fairly when the actual outcome is known. Hindsight may interfere with comprehension of past expectations, even if an effort to the contrary is made. For example, in the early 1970's, many utilities that depended on fuel oil were suddenly left without supplies, and a few years later, some parts of the country dependent upon natural gas experienced severe shortages. In fact, the utilities in the case at bar faced precisely such shortages at relevant times. More recently, the Power Plant and Industrial Fuel Use Act (PIFUA), 42 U.S.C. sec. 8301 et seq. (West Supp. 1980), has inhibited planning for uses of natural gas as a boiler fuel, and the Department of Energy vigorously encouraged utilities to shift from natural gas to other fuels, including nuclear energy. DOE, *National Energy Plan II* (1979); *see also* DOE, *Reducing U.S. Oil Vulnerability: Energy Policy for the 1980's* (1980); ERDA, *Energy in Transition: 1985-2010* (1979). Thus the evaluation of forecasts of future energy supplies from a perspective of subsequent events may engender allegations of "excessive" costs even when there has been good-faith and indeed prudent management.

Consequently, if the evidence in this case supported a finding of culpable negligence in management, the costs produced thereby would not properly be included in the rate base. But this test should not be satisfied by the mere fact that "excessive" investment has been undertaken. If there is no actual evidence of culpable imprudence, the results of such decisions should be

included in the rate base. In this case, ninety percent of the utility's expenditures (and one hundred percent of those here at issue) have been recognized as prudent. The disallowance of major parts of those prudent expenditures amounts to a taking of property without compensation.

CONCLUSION

If it is to be faithful to the Constitution, this Court cannot permit the approach of placing costs attributable to the operations of a regulated public utility on equity shareholders merely because they are deemed excessive in hindsight. Unregulated competitive enterprises can offset reduced receipts by greater-than-normal profits in "good" years, but a regulated public utility cannot do so because its profits even in "good" years are regulated. Consequently, the approach of causing equity shareholders to bear the costs of a public utility's "excess capacity" as a general proposition, inescapably would lead to impairment of the utility's financial integrity. It therefore would violate the *Hope* test. Only if a particular investment or cost is so culpably imprudent that it cannot rationally be included in the original cost of the operation of a utility over the long run, should it be excluded from the rate base; absent actual proof of culpable imprudence, it should be included.

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Appellee.

On Appeal from the Supreme Court of Kansas

APPELLANT'S SUPPLEMENTAL REPLY TO MOTION TO DISMISS FOR LACK OF CASE OR CONTROVERSY

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APPELLANT'S SUPPLEMENTAL REPLY TO MOTION TO DISMISS FOR LACK OF CASE OR CONTROVERSY

On April 13, 1987, the State Corporation Commission of the State of Kansas (KCC) filed a motion to dismiss this appeal for mootness or lack of a case or controversy. The KCC argued in its motion that a rate order issued March 11, 1987 (1987 Order) rendered this case moot because the new order granted KG&E virtually all the relief requested. On April 23, 1987, Kansas Gas and Electric Company (KG&E) filed its reply to that motion arguing that KG&E continues to suffer injury. Recent events of May 6, 1987, may have changed the assumptions on which the 1987 Order and the KCC's motion are based. These events, described more fully below, may result in severe injury to KG&E's financial health. These events underscore the need for this Court to deny the KCC's motion to dismiss.

BACKGROUND

As a publicly held company, KG&E is subject to the financial accounting and reporting standards established by the Financial Accounting Standards Board (FASB):

> Since 1973, the Financial Accounting Standards Board has been the designated organization in the private sector for establishing standards of financial accounting and reporting. Those standards govern the preparation of financial reports. They are officially recognized as authoritative by the Securities and Exchange Commission (Financial Reporting Release No. 1, Section 101) and the American Institute of Certified Public Accountants (Rule 203, Rules of Conduct).
>
> The SEC has statutory authority to establish financial accounting and reporting standards for publicly held companies under the Securities Exchange Act of 1934. Throughout its history, however, the Commission's policy has been to rely on the private sector for this function to the extent that the private sector demonstrates ability to fulfill the responsibility in the public interest.

Facts about FASB 1987 at 1 (Jan. 1987).

In December 1982, FASB issued Statement of Financial Accounting Standards No. 71 which provides guidance in preparing general purpose financial statements for most public utilities. Notably, in defined circumstances, Statement 71 permits net income to be increased by a non-cash allowance for funds used during construction, consisting of an equity component and a debt component. Statement 71, however, did not prescribe the accounting for non-cash accruals of income associated with three types of events that recently have occurred in the electric utility industry—phase-in plans, abandonments, and disallowances of costs of newly completed plants.

On December 19, 1985, FASB issued an exposure draft of a proposed statement which would prescribe accounting for phase-in plans, abandonments, and disallowances. After an extended period for comments and hearings, FASB in December 1986, issued Statement of Financial Accounting Standards No. 90 which prescribes accounting for abandonments and disallowances. Statement 90 does not treat accounting for phase-in plans. On January 20, 1987, FASB indicated its intention to issue a new exposure draft concerning accounting for phase-in plans because ". . . it could not continue to support accounting for phase-in plans . . . similar to that proposed in the December 1985 exposure draft. . . ." Financial Accounting Series No. 041 at 7 (January 20, 1987).

Subsequent to January 20, 1987, FASB indicated that accounting for phase-in plans would not be reexposed. Instead, FASB indicated that it would issue a statement based on the December 1985 exposure draft. At a public meeting on May 6, 1987, FASB discussed and indicated its intention to approve such a statement. Based on discussions by FASB at its May 6 meeting, the expected statement would adversely affect certain accounting treatment authorized by the Kansas Corporation Commission (KCC), in the 1987 Order approving KG&E's rate stabilization plan. (See App. to KCC's motion to dismiss, A1-A37). The 1987 Order is the sole basis for the KCC's assertion that this appeal should be dismissed.

ARGUMENT

KG&E's rate stabilization plan depends upon the continued viability of the accounting treatment which the 1987 Order authorizes in its ordering paragraphs 7, 8, 9, and 10, as follows:

> 7. The authority granted to KG&E in Docket No. 149,109-U to accelerate to eight years the amortization of construction related tax credits, as more fully described in that Docket, is reaffirmed.

8. KG&E is permitted to accrue carrying charges on the portion of Wolf Creek which the Commission finds constitutes excess physical capacity. Such accrual will be at KG&E's before tax (gross) cost of debt and preferred stock adjusted annually and shall be applied to KG&E's investment of $2,376 per KWH.

9. KG&E is permitted to accrue deferred phase-in revenues at a before tax (gross) rate until the delayed third rate increase becomes effective on January 1, 1989. KG&E is also permitted to accrue carrying charges on these accumulated revenues until the delayed fourth rate increase becomes effective on January, 1992. The carrying charges are to be based on a 15.5 percent cost of equity and KG&E's actual cost of debt and preferred stock adjusted annually. These carrying charges are to be compounded semi-annually. KG&E is not permitted to accrue deferred phase-in revenue related to the incremental impact of Ripley's retirement.

10. KG&E is permitted to cease accrual of all deferrals and carrying charges on December 31, 1991, and thereafter amortize the deferrals and carrying charges on a sinking fund basis over Wolf Creek's remaining depreciable life.

(*Id.* at A35-A36).

At its May 6 meeting, KG&E understands [1] that FASB indicated its intention to approve a statement which would prescribe accounting for phase-in plans. Based on FASB's May 6th discussion, it appears that such a state-

[1] FASB has not issued a written account of its deliberations at the May 6 meeting. The meeting was public and was attended by a representative of Deloitte Haskins & Sells, KG&E's independent auditor. KG&E's representations concerning the May 6 FASB meeting are based upon information provided to KG&E by Deloitte Haskins & Sells. Given the pendency of the KCC's motion to dismiss, KG&E could not delay this supplemental reply until receipt of an official FASB communication concerning the May 6 meeting, let alone wait for FASB's issuance of a statement which prescribes accounting for phase-in plans.

ment will permit non-cash accruals of income associated with phase-in plans only if a phase-in plan permits complete recovery of all such accruals within 10 years. The 1987 Order authorized KG&E to recover non-cash accruals of income, associated with KG&E's rate stabilization plan, on a sinking fund basis over 33 years, from 1992 through 2025. (*Id.* at A35). Such recovery would not satisfy FASB's 10 year limit. A similar problem exists for the accelerated amortization of tax credits permitted in ordering paragraph 7 of the 1987 Order. (*Id.*) Finally, KG&E understands that FASB will apply the expected statement on a retroactive basis. This means that non-cash income associated with the rate phase-in for Wolf Creek which KG&E has already booked under the 1987 Order, as well as under the original September 1985 Wolf Creek Order (the subject of this appeal), would have to be written-off against retained earnings.

Of course, the exact impact on KG&E's financial health of the expected statement cannot be determined until the statement is approved and issued. Although the statement would have no impact on KG&E's cash flow, it is possible that for a period of time neither current nor retained earnings would be sufficient to cover any dividends. In such circumstances, dividends paid would constitute a return of capital—a partial liquidation of the company—rather than a payment of earnings.[2] Therefore, the 1987 Order, contrary to the KCC's assertion in its motion to dismiss, does not provide the relief requested in this appeal. A situation that leaves KG&E with no current or retained earnings cannot possibly satisfy the requirement established in *Bluefield Waterworks & Improvement Co. v. Public Service Comm'n*, 262 U.S. 679 (1923) of a return that assures confidence in

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[2] KG&E's rate stabilization plan may be modified in the future by the KCC to reduce or eliminate the otherwise adverse impact of the statement.

the financial soundness of the utility (see Brief For Appellant Kansas Gas and Electric Company at 16-25).

The events described in this supplemental reply underscore the central point of KG&E's April 23 reply. The 1987 Order issued by the KCC does not moot the present controversy because the 1987 Order does not provide KG&E adequate relief.

For the reasons stated herein and in KG&E's April 23 reply, the Court should deny the KCC's motion to dismiss, and should hear oral argument and decide this case on its merits.

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